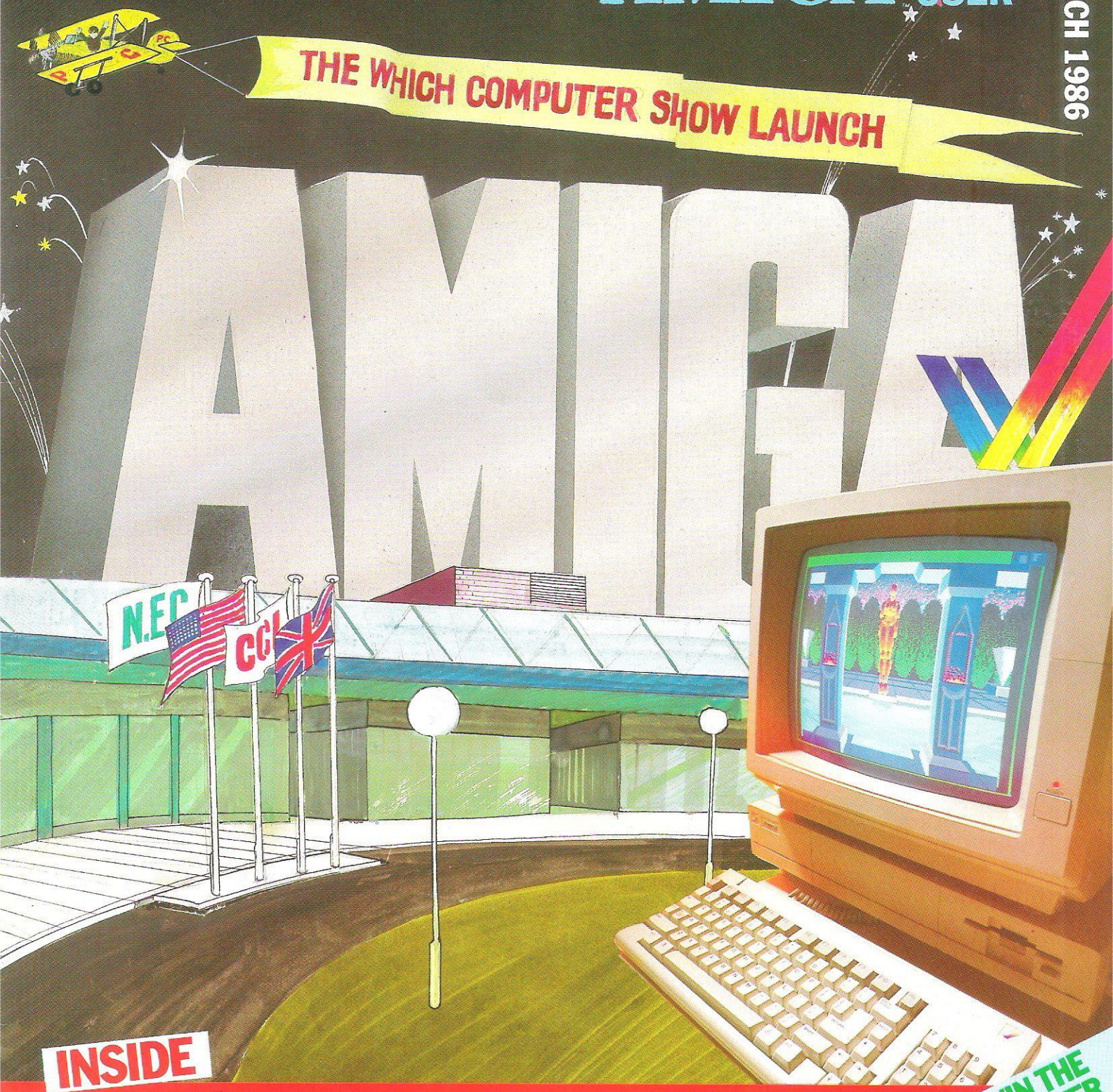
COMMODORE

BUSINESS MAGAZINE INCORPORATING AMIGA USER

MARCH 1986



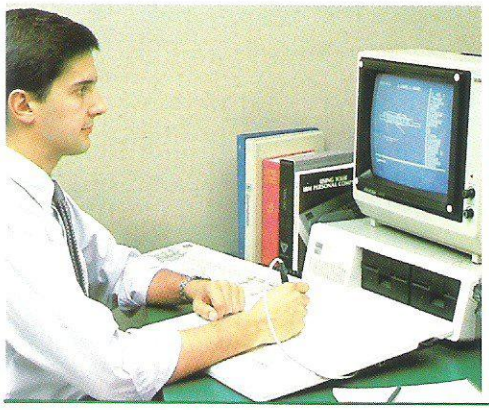
INSIDE

Commodore colours the PC and reveals the secrets of its amazing Amiga . . . more of the best NLQ printers and word processors . . . *the PC* software list . . . graphics for business and much more . . .

YOU CAN WIN THE PENMAN PLOTTER AND A CITIZEN PRINTER!

Summagraphics®

Summagraphics is the world's leading supplier of digitizers. Since 1972 we've supplied more digitizers and data tablets to more OEM's than any other manufacturer. Now we're bringing the same professional technology to personal computer users.



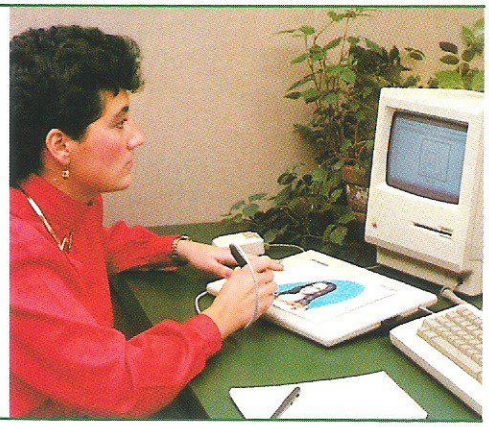
SummaSketch™

Now you can add SummaSketch, a high resolution digitizing tablet,to your IBM PC or Compatible and convert your system into a personal CAD workstation.The SummaSketch tablet, measuring 12ins x 12ins with a resolution of 1000 lines per inch, enables you to realize the full potential and productivity of CAD and business graphics software by allowing you to scale and trace existing drawings as quickly and easily as putting pen to paper.

SummaSketch is ideal for engineers, architects, designers or users of business graphics. Software packages supporting SummaSketch include AutoCAD, VersaCAD, GEM Draw and GEM Paint. SummaSketch tablets come complete with stylus, power supply, interface cable and users' manual.

MacTablet™

Developed under Apple's Certified Developer's Program, the MacTablet hardware/software combination provides an ideal interface to the Apple Macintosh for the production of graphs, charts and drawings. Summagraphics' 6ins x 9ins MacTablet and stylus let you turn your Macintosh system into a real graphics workstation by adding the ability to trace and enter existing drawings as quickly and easily as putting pen to paper. Drawings can be traced from a single piece of paper or from originals up to ½in thick. MacTablet is compatible with MacDraw, MacPaint and all Macintosh software. It also operates in conjunction with the Macintosh Mouse, so there's no need to plug and unplug.
The software allows you to install the MacTablet driver in the desk accessory menu so you can use your MacTablet with all your Macintosh software.



SummaMouse™

SummaMouse combines speed, reliability and intelligence. Its fully electronic technology ensures that it is maintenance free. SummaMouse is ideal for moving between windows and interacting with CAD and business graphics software.It enables you to interact faster and more accurately with software than is possible through keyboard commands.
SummaMouse now operates with IBM's new operating environment, TopView. Just point and click to take full advantage of all the features of IBM's new windowing and multi-tasking software.

SummaSketch, MacTablet and SummaMouse, from the World's leading supplier of digitizers.

Now, draw your own conclusions

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0635 32257 Telex 848750 SUMMUK G

International Sales
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01-373 7238

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To Summagraphics.
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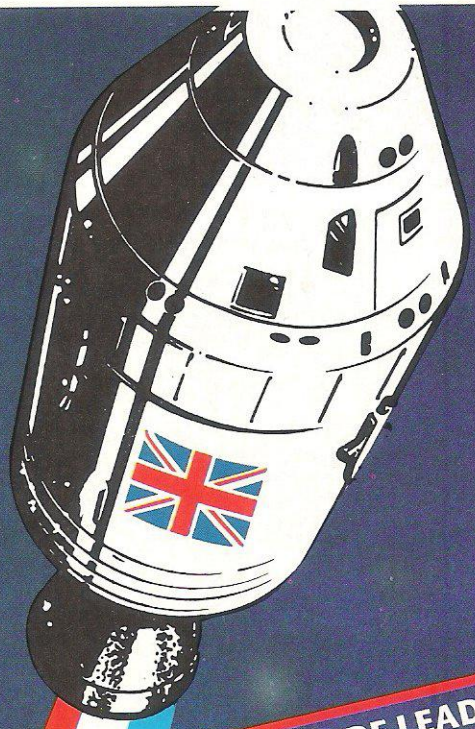
Samleco Launch

A BRITISH FIRST INTO THE AGE OF LOW COST PRINTERS



WORLDWIDE LEADERS, BOOSTING PRINTER TECHNOLOGY TO UNBELIEVABLE ORBITS FROM BRITAIN!

In only 6 months Samleco have created a sales boom in 5 countries including the U.K. and are rapidly becoming a force to be reckoned with.

DT-80 (Silent Printer)
35 cps, 80 col., 11 x 9 thermal printer. High definition. Built-in PSU. Full range of interfaces. Will take standard paper. Exceptional value at only:
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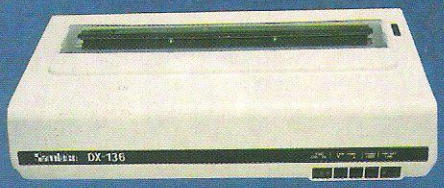

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Wide carriage, high definition, high speed and with 9 international languages and Near Letter Quality.
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120 cps, 80 col., 9 x 9 dot matrix printer. Full graphics, operator interchangeable interfaces for Centronics Parallel, RS 232 Serial and Commodore and including 2K buffer.
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DX-86
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DX-135
Heavy duty, 120 cps, 132 col., 9 x 9 dot matrix printer with push-pull tractor for multi-part stationery.
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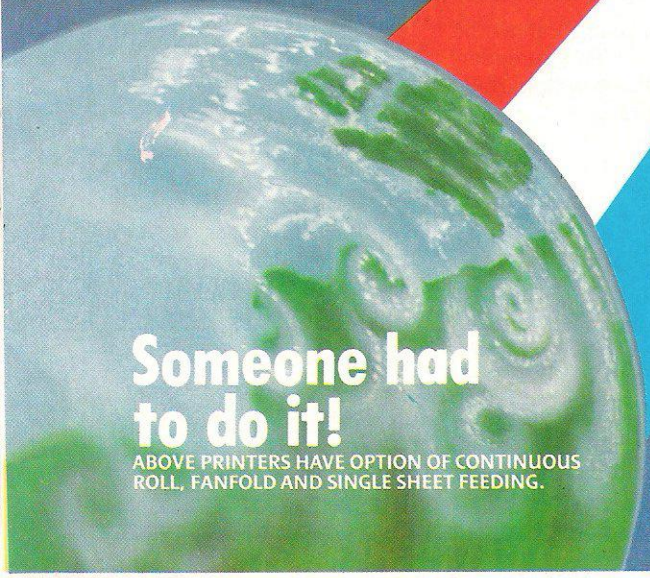

Someone had to do it!

ABOVE PRINTERS HAVE OPTION OF CONTINUOUS ROLL, FANFOLD AND SINGLE SHEET FEEDING.

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Tel: 01-278 0333

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Printed by Chase Printers Group, London and St. Austell.

The problem of computer incompatibility appears to have been solved by InterMedia with a system based on a personal computer.

The company claims that its multi-media convertor can read disks from almost any computer, and then generate disks which may be read by almost any other computer.

One application is in printing, where text may be taken on a disk from a word processor and typeset very quickly.

Swedish banks were keen to use the multi-media convertor in order to accept payroll data and other financial dealings direct from the customers' computers.

Contact: InterMedia Graphics Systems Ltd. Tel: 0273 478725.

Also then on the subject of computer compatibility, Canadian company Keyword Office Technologies has developed Com-File.

The system converts a document into the Com-File format, transmits it and finally restores it to its original format at the other end.

Contact: Keyword. Tel: 01-437 6900.

Do you dispose of sensitive documents by shredding them? If so, do you realise that typewriter ribbons pose an equal threat if they are just thrown into a waste-paper baskets?

Ribbon cassettes cannot be put through ordinary shredders and it is not safe to burn them without taking special precautions.

Eba Imago has a unit called Carbon 2000 which destroys whole ribbon cassettes in bulk. Videocassettes, floppy disks, files and similar office items which cannot be dealt with by ordinary paper shredders can also be successfully destroyed with the Carbon 2000.

Contact:Eba Imago. Tel: 0635 63208

Non-abrasive Cleaner

Proguard have introduced what they claim to be the world's first dry Head Cleaner which is totally non-abrasive.

Guaranteed for 50 cleaning cycles, Proguard Head Cleaning Disks have a light transmissivity of 0.01% and static generation is virtually nil.

Contact: Proguard Computer Products Ltd, 1 Wolsey Road, Hemel Hampstead, Herts. Tel: 0442 56860.

Laser Range

Mekom Computer Products have launched a range of Automatic Cut Sheet Input and Output devices.

Laser Feeder features dual input cassettes holding 200 sheets each; 50 envelope capacity magazine; and optional 400 sheet forward collated output stacker.

More flexibiltiy is offered by the Multi Feeder, with six input cassettes.

Both are fully compatible with the Canon LBP-8 A1 and Hewlett Packard Laser Jet. Prices start at £1190.

Contact: Mekom Copmputer Products Ltd, Enfield Hall, Enfield Road, Edgebaston, Birmingham B15 1QA. Tel: 021 454 2288.

Plug-in PC Workstation

Primatel now offer a workstation complete with the facilities necessary for the efficient operation of a PC.

Features include a paper storage shelf; paper catch tray; storage cupboard; supplies drawer; four-way mains adaptor; fused mains isolator; lockable castors; and a 30mm thick post-formed worktop.

The measurements of this workstation are 150cm long x 60cm deep x 71cm high.

Contact: Primatel Products Ltd, Unit 4, Norbury Trading Estate, Craigness Avenue, London SW16 4RW. Tel: 01-679 4428.

Promises, promises

PC Promise is a new data management system from Duncan Databases Ltd.

The package is designed to allow first-time users to be able to understand it and enter data within a few minutes. It is also powerful enough for professionals to develop full scale systems.

Designed for IBM PC and compatibles, with a minimum of 128K memory, PC Promise features over a million records per database, depending on hardware configuration and operating system.

Fields are of variable length up to 1800 bytes per field, with 250 fields per record. Fields can be added, deleted or changed without the need to reorganise files.

Other features include: up to 10 database files open simultaneously; 15 digits of numerical precision; screen painting for full screen formatting; user definable menus and help screens; screens can be redefined as windows; constext sensitive help available on line.

PC Promise can be interfaced with Dbase III, Wordstar, Lotus 1,2,3, and ASCII files.

A free demonstration disk is available which allows you to create and actually work your own mini database, identical in all respects to the real thing only of limited capacity.

The package costs £175 plus VAT.

Contact: Duncan Database Ltd, 9 Chestnut Grove, New Malden, Surrey KT3 3JJ. Tel: 01-942 2538.

Women VDU operators suffer more serious and more frequent symptons than men reports a survey carried out by Health and Safety at Work magazine.

This is apparently because: "Not only are women engaged in more repetitive and less varied tasks than men at the VDU. They also work longer hours and for longer periods without a break than men."

Of the symptons suffered by all VDU operators, eye strain afflicts more than 70% of users. Another 53% are reported to experience painful or stiff neck or shoulders, while 57.6% complain of fatigue.

Whilst eye strain is the most common problem, irritability was mentioned by 39.2%!

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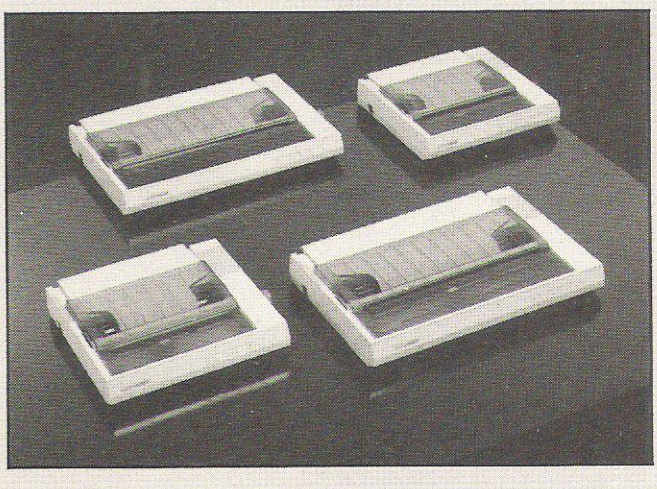
Win PC Printers!

This month we are giving away a Citizen MSP-10 printer and a Penman Printer/Plotter to the first two correct entries out of our competition sack.
Just answer the following questions and complete our tie-breaker in no more than 10 words.

Q Which printer is the MSP-10 in direct competition with?
A .....

Q What is the draft quality speed of the MSP-10?
A .....

A Citizen MSP-10 would benefit my business because
.....



The Closing date is 20 February 1986.
All entries must be accompanied by a business card.

Business Competitions, CCI, Finsbury Business Centre, 40 Bowling Green Lane, London EC1R 0NE.

Name_____

Address_____

_____

Company_____

An Epson in Commodore clothing!

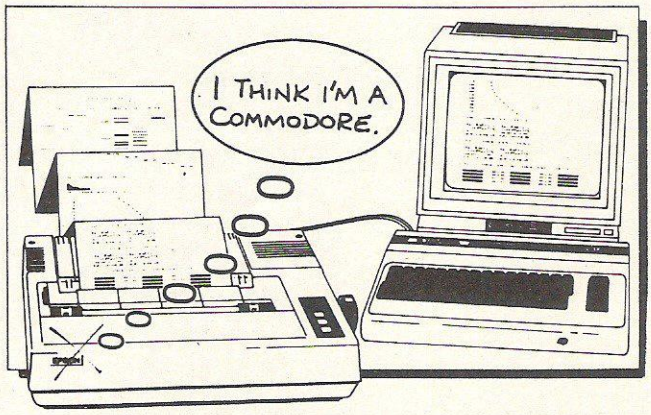
NOW AVAILABLE FOR KAGA-TAXAN/CANON

How many Commodore home computer owners, when faced with buying a printer, have longed to own an Epson but been put off by the problems involved? Firstly, it's not easy to connect the two together. Secondly, even when connected, it may be necessary to load driver software or the cartridge slot may be unusable. Finally Commodore-specific characteristics such as graphics and formatting commands will not be available.

Now Micro Control Systems have the solution. Just plug the Comprint circuit board inside the Epson, connect the cable supplied to the Serial I/O port on the Commodore computer and Hey Presto! The Comprint fools the Commodore into thinking it is working with a Commodore printer. All the features are there – total emulation. And it even provides a 2K buffer as well.

What's more all the additional features that have made Epson so successful, such as condenced print and other type styles, are accessible directly by the Commodore computer. For the business user the ability to use 15 inch paper (in the MX/RX/Fx-100 range) and print a £ sign (or other Epson special characters) will prove invaluable.

So go on – spoil yourself. If you are the owner of a Commodore personal computer treat yourself to an Epson – and a Comprint of course!



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COMMODORE 8000, PET USERS
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Westwood Distribution	021-643-8680
Data Distributors (Taxan)	0442-60155
Micro Peripherals (Canon)	0256–473232
A-Line Ltd	0533-778724

"Presents excellent value for money... a worthy purchase for any Commodore 64 or VIC 20" – *PCN, January 12th, 1985.*

"This is one of the most versatile interfaces I have used... a combination that will do almost anything you ask of it" – *Commodore User, January 1985.*

"Undeniably an interface to look at" – *Commodore Computing Int., May 1985*

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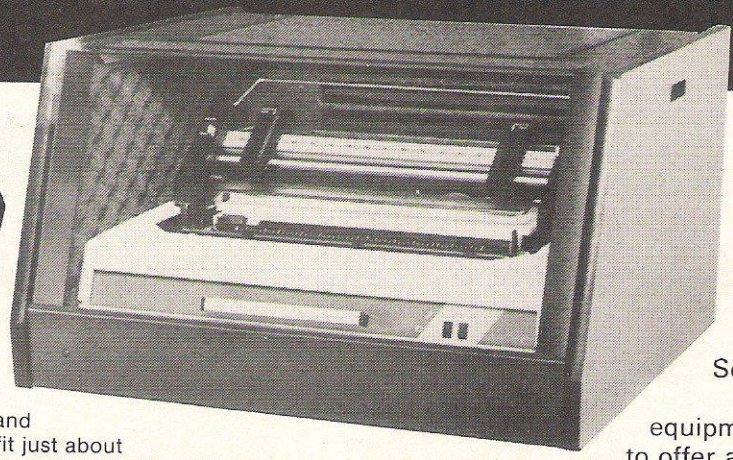
...the noise from our printers used to be terrible until we fitted them with FERNHILL acoustic covers...



They reduce the noise by about 85%, and fit all formstractors and sheetfeeders with a model to fit just about any printer you can think of including COMMODORE, DIABLO, DIGITAL, FACIT, GE, IBM, NEC, QUME, RICOH, TEC and WANG.

As the major British manufacturer of Sound Controllers and silencing equipment we are able to offer a comprehensive range of models to suit all your requirements on design, quality and price.

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Tried and Tested

Commodore has tested numerous packages on its PCs to confirm compatibility. The following is a list of the packages that have been successfully tested so far.

INTEGRATED SOFTWARE
Framework
Open Access
Smart
Symphony
Xchange

ACCOUNTING SYSTEMS
Colt Attache Business Systems
Colt V5 Single & Multi-User Systems
Compact Accounting System
Genesis Accounting Systems
Integrated Accounts & Stock Control
Stockmaster II
Pegasus Accounting Systems
Sage Accounting Systems

DATABASE SYSTEMS
Archive
Brainstorm
Cardbox
Cardbox Plus
Datastar
dBase II
dBase III
DMS Delta
DMS Delta IV
DMS+
Everyman
Friday
Infostart+
Perfect Filer
Rescue III
The Sensible Solution

WORD PROCESSING
Addressbook
Easywriter
Multimate
Perfect Writer
Quill
Spellbinder
Superwriter
Volkswriter
Word
Wordstar
Wordstar Professional
Wordstar 2000

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Abacus
Easy Planner
Logistix
Lotus 1-2-3
Multiplan
Perfect Calc
PFS: Plan
Powerplanner
Sideways
Statpack
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FINANCIAL MODELLERS
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Micromodeller

GRAPHICS
Chart
Chartstar
Dataplot
Easel
ExecuVision
Microcad

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Elcon
Estimaster
Pertmaster
Pertprinter
Project
SuperProject
Total Project Manager

USER UTILITY PROGRAMS
Interchange
Jeeves
Norton Utilities
Print Works
Prokey
Sidekick
Sideways
Spotlight

PROJECT PLANNING
Cleva
Elcon
Estimaster
Pertmaster
Pertprinter
Project
SuperProject
Total Project Manager

USER UTILITY PROGRAMS
Interchange
Jeeves
Norton Utilities
Print Works
Prokey
Sidekick
Sideways
Spotlight

COMMUNICATION & TERMINAL EMULATION SOFTWARE
AST-5251/11
AST-5251/12
Bstam
Chit Chat
Comptel
Crosstalk
Datatalk
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Intelpost Courier
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PC to Mac & Back
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Remote
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VTerm
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Irma 3270 Emulator
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OPERATING SYSTEMS
Concurrent CP/M 86 (& with Windows)
Concurrent PC-DOS
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PROGRAMMING LANGUAGES
BASIC Compiler
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Business BASIC Compiler
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CBASIC Compiler
CIS COBOL
COBOL
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DR Logo
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PL/1
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Forms II
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BOS/Payroll
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BOS/Sales Order Processing

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BOS/Seams

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BOS/Office Automation Pack
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BOS/Writer

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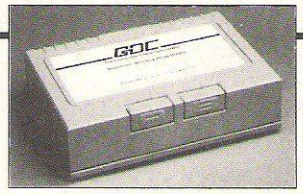

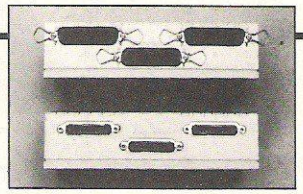

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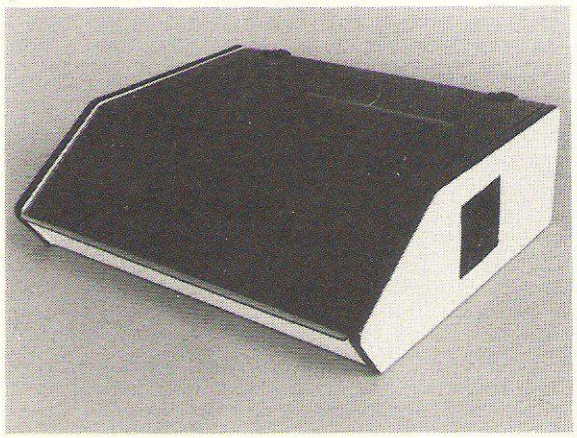

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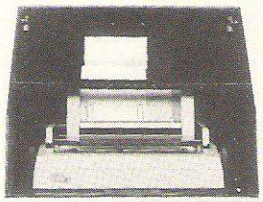
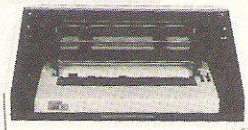
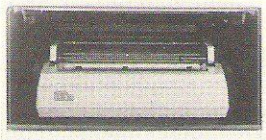




Brother: CPT: Diablo: Epson, Facit: Honeywell, IBM: JUKI, Mannesman-Tally,



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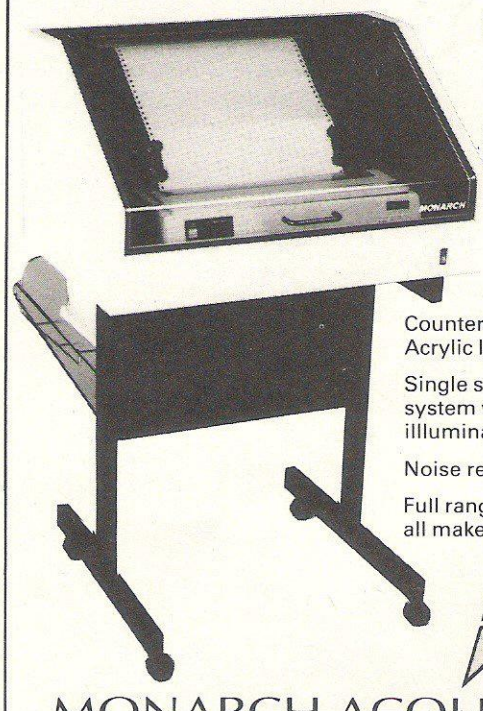

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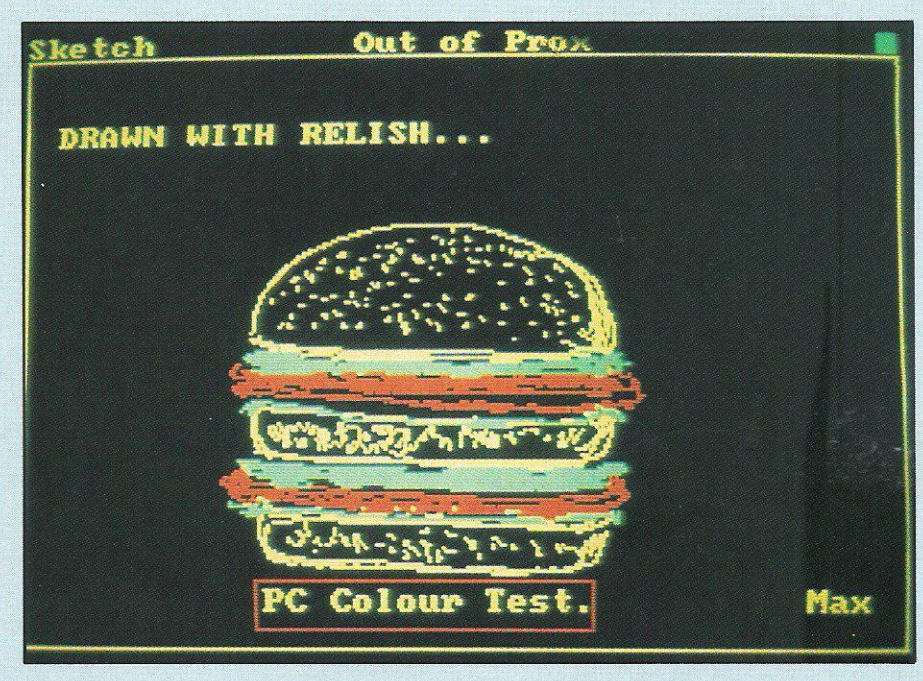
Colourful PC

Looking at Commodore's colour PC and some interesting peripherals.



With the recent addition of a colour PC to their range of business machines, Commodore now have a really complete range of machines with which to attack the business sector.

Whether or not their dubious timing (almost simultaneous with the Amiga's public launch) will dampen anybody's excitement is yet to be seen. Almost every businessman who regularily uses his PC will find moments when he wishes that his PC had a graphics and colour board, allowing him to produce graphics to explain an otherwise unintelligable mass of figures and data.

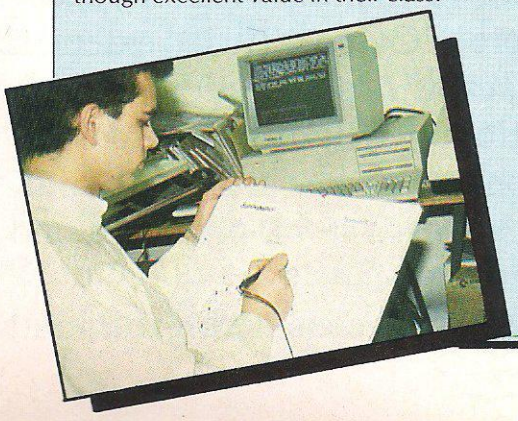
Commodore's new colour PC has a maximum resolution of 640 x 200, and 16 colours to chose from (although all 16 colours are only available in text mode). In medium resolution (320 x 200) you have a choice of two four-colour pallettes, with which you can create very effective graphs and charts, as well as some pretty pictures!

Commodore seem to have also realised that people may wish to upgrade their current PC10 or PC20, and I think that they will accept a wide variety of third party colour boards.

As expected the colour PC is 100% compatible with the normal b/w version, and externally there are no differences at all.

Unfortunately the colour PC is still a dated machine – when compared with the similarily priced Amiga it's a joke. Then again the Amiga's software base is minute, and the PC'c cerainly isn't!

If you really do need a PC, and cannot wait for the Amiga's promised IBM emulation program, then the Colour PC10 and 20 are as good compatibles as I've seen, but remember – that's all they are, though excellent value in their class.



Thompson Colour PC Monitor.

In a very full market, it's always surprising to see another company try to make a really big dent. Thompson have a new range of monitors for the 128, PC and more recently the Amiga.

The monitor I am reviewing, designed for the colour PC, has well over 10 different companies to compete with, as well as IBM's own monitor which although vastly overpriced, is very good.

The Thompson's first good point is it's size – small and neat. Coloured in the same dull grey as the Commodore PC, it fits neatly on top and is pleasant to look at as well as use. For me, the one feature that really makes this monitor good is the ability to switch screen colours. If you've ever had to use a green monitor all day, you really will appreciate the ability to choose whether you want to have a green, amber or black and white screen display. Personally I like using the Amber display, as it seems to strain the eyes a lot less than any of the other options.

When used with the colour PC the monitor provides very nice clear graphics, although ours required a little setting up to avoid the corners of the image being squashed.

Overall I rate the Thompson Monitor very highly. In use it proved to be one of the nicest monitors I've used with the PC.

SummaSketch and Paintbrush.

If you do not use your PC only as a business machine in the purest sense of the word – wordprocessing, database, and spreadsheets – and want to try and create something a little more imaginative, you will need to obtain a peripheral that alllows you a little more scope than just the keyboard. To go with it you need software that makes the most of both the machine and the peripheral.

One company that produces this type of hardware and software, and which is totally compatible with the Commodore PC, is Summagraphics. Their Summa-Sketch Graphics Tablet, combined with Paintbrush software will give many people an unexpected chance to be artistic on a PC.

Almost everybody will have seen a graphics tablet at some point, although normally they are associated with more expensive dedicated CAD (Computer Aided Design) machines, or as glamorous but useless toys for home computers. SummaSketch is neither of these, providing a useful and fun alternative to the more normal methods of producing graphics.

When you first set up the SummaSketch, the immediate reaction is how accurate the pen you use is. Once calibrated properly it is quite possible to trace pictures from the tablet to the screen with quite reliable accuracy.

The daunting task of choosing a business system becomes far more enjoyable when you consider the new Commodore PC's pedigree:

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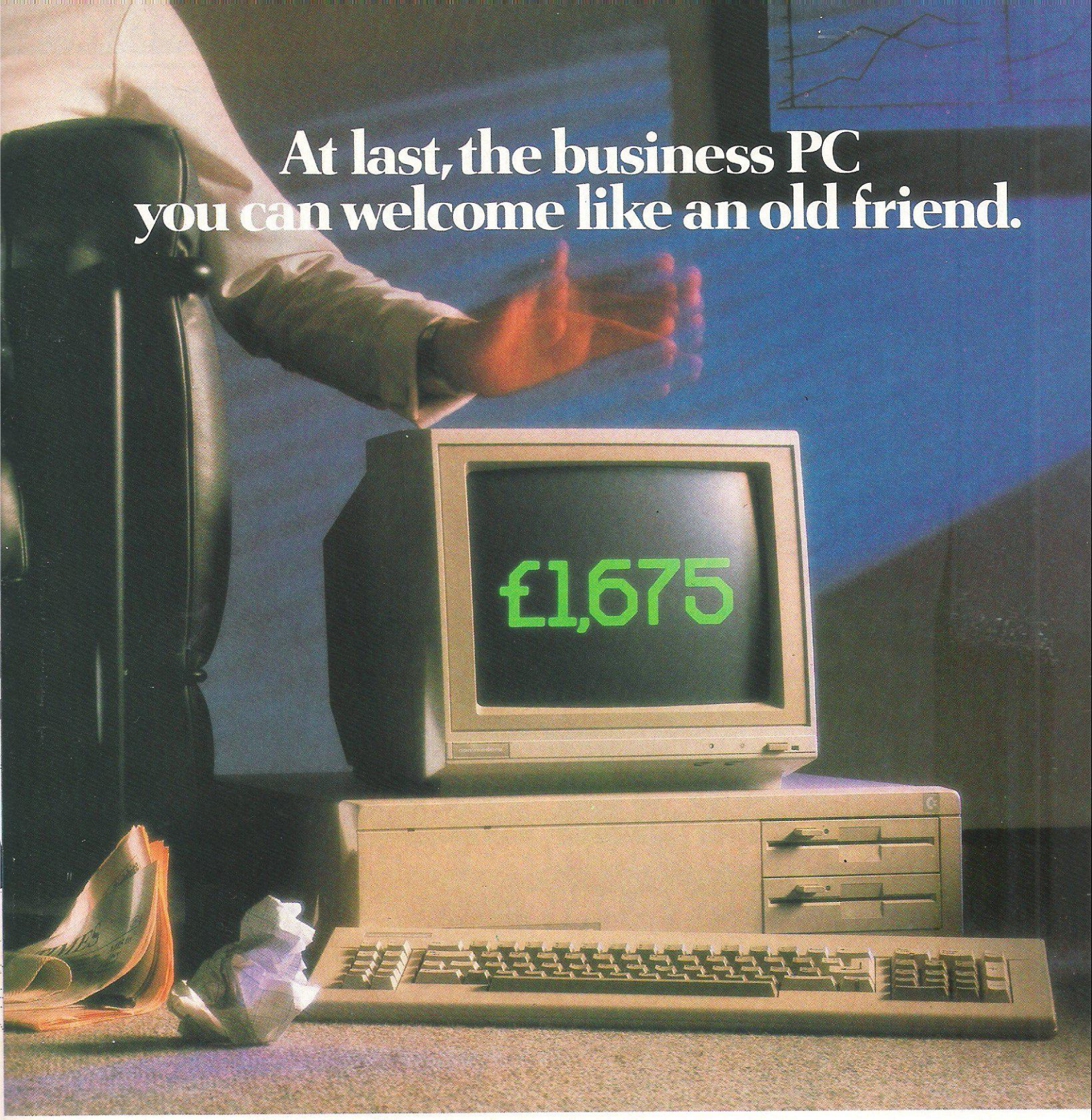
The price, considering this kind

At last, the business PC you can welcome like an old friend.



of pedigree is quite outstanding: £1,675.

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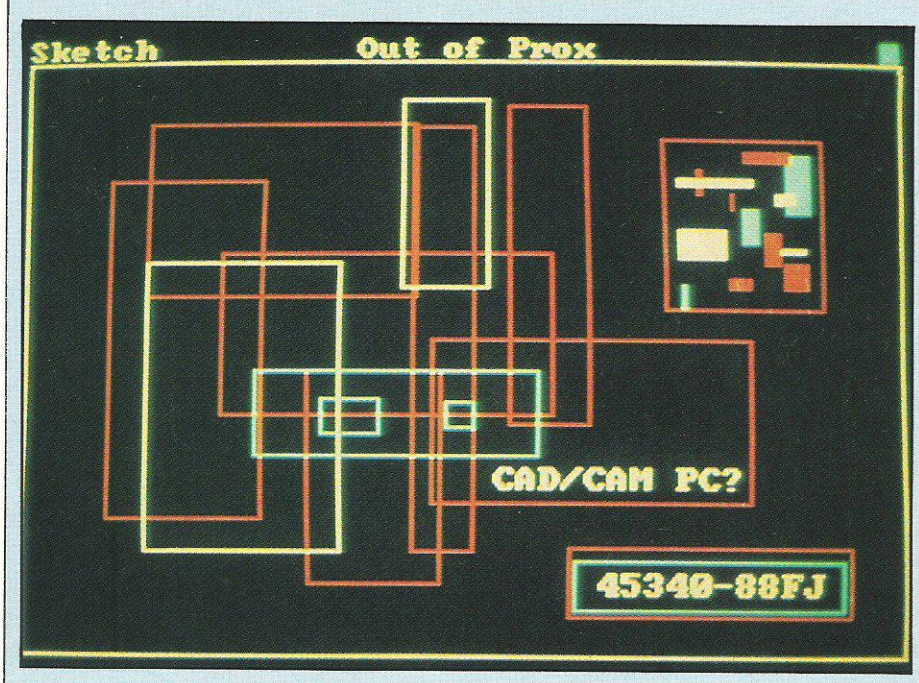


Although you only have a pallette of four colours to choose at one time, there are two pallettes in total – the first consisting of Red, Green, Yellow and Black and the second Pink, White, Blue and Black.

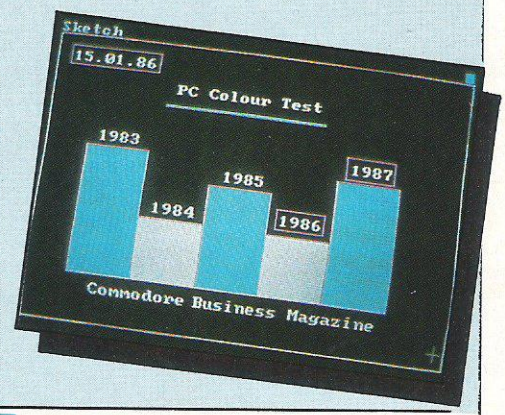
A wide variety of options allow you to create some pretty impressive results, although it does depend completely on your artistic prowess, which is why my pictures were so pathetic! As well as the usual options such as line, circle, box and sketch, Paintbrush provides some really nice alternative commands such as pick; this allows you to – in effect – create a brush of your choice from whatever else is on the screen, including any previously drawn pictures.

Frame was another command I used regularly, especially when creating any form of business chart (something that really is very simple and took me only a matter of minutes). It allows you to create a wire line box around whatever you wish, and is both fast and accurate.

The spray command allows you to present air-brush type strokes to add an attractive three dimensional effect. Being able to erase mistakes is also catered for, but unfortunately you cannot undo any inadvertant errors, as our illustrator found out to his cost!

Overall SummaSketch is an impressive product to say the least. Used in conjunction with a decent paint program, I can see many useful as well as artistic results being produced.

Even if you cannot see yourself becoming a budding Warhol, SummaSketch could still prove to be a practical business product.



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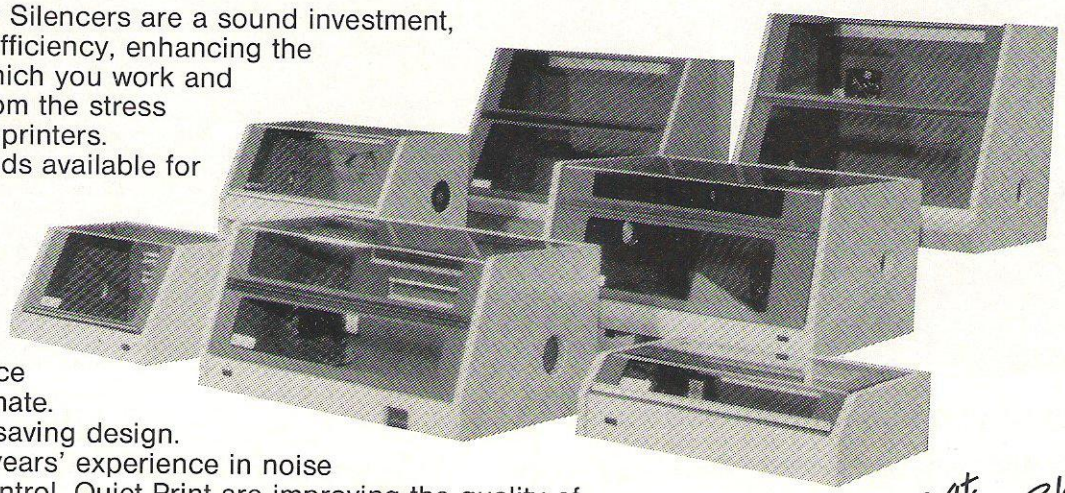

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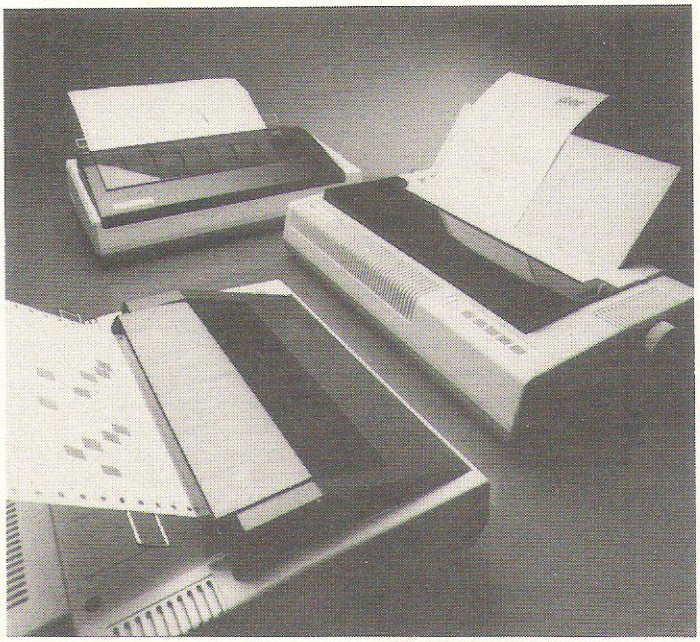

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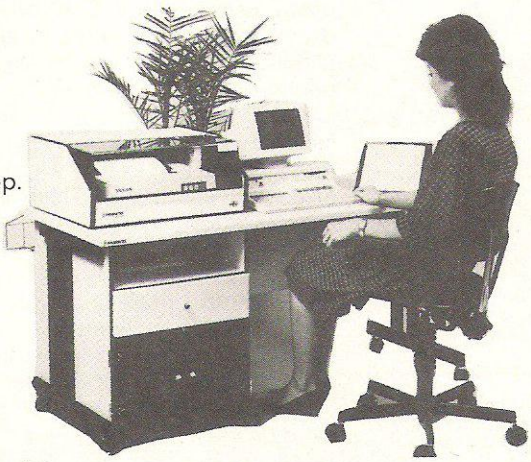

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PC Wordprocessing

If you have a Commodore PC, a word processor should be a basic software investment for you. Even if you have bought the machine primarily for some other purpose, you will find that a word processor more than repays its cost in time and trouble saved – and in quality of results.

Which package to buy, though? Which has the features that you are going to need? What are the real differences between the cheap, 'easy to learn' packages and the elaborate expensive ones? Advertisements and short dealer demos do not always make this clear.

Establishing Your Needs

Before you even begin to look at possible packages, you should be clear in your mind exactly what you want from a word processor. By this, I do not mean whether you are a novice, a whizz touch-typist or a would-be occasional user – though these are all aspects that dealers tend to pick up on. I mean what kinds of document you want to produce, and what specific features you intend them to have.

Take along to your dealer some examples of your company (or private) style of letter, memo and report. How do you like headings to appear? Do you use headings in mid-page, or only at the tops of pages? Do you often need to produce indexes or tables of contenets? Where do you like page numbers to appear? Do you regularly need to produce indented numbered paragraphs, sub-paragraphs and sub-sub-paragraphs? Do you use subscripts, superscripts, special foreign or scientific characters?

It is all too easy to assume that a word processor simply must do exactly what you want it to do. Sadly, that is not true. As an author and journalist, for example, I snarl over packages that will not number pages at the top-right (some offer bottom-of-page only) or that will not provide a word count (many packages won't). Others grumble over packages that won't produce one-and-a-half spacing, or won't generate a pound sign on their printer. Such failings are common; they are all specific to individual packages. If the package you are shown doesn't do exactly what you want, then ask for one that will. There will be one, if you look hard enough.

Some failings are unique to program-printer combinations, and it is very important to ensure that you obtain a program that fully supports your printer, especially if you have an expensive printer with advanced features like alternate fonts or microspace justification. Almost every word processor has support for the Epson FX-80, for example; only a minority will have support for any specific daisy wheel printer. Most programs have support for a limited number of named printers, plus a 'catch-all' category for other common types of printer. 'Catch-all' support will enable your printer to do the basics only. It will not provide full support for its special features.

Cheap Packages

Business software is extremely expensive, unreasonably so many would say. Partly in response to this realisation, there has been a recent trend for word processors to fall into two different classes: cheap packages generally costing between £100 and £200, and more expensive full-featured packages costing between £250 and £500.

Often the cheaper packages – like Micropro's Easy, Pfs:Write, Bonnie Blue and Perfect Writer II – are specificallly billed as suitable for first time or occasional users. They are claimed to be easier to use than their more complex and expensive rivals.

Is this so? Only to a very limited extent. Almost all word processing programs are simpler to use today than were their predecessors five years ago. Ergonomics and on-screen help facilities have improved beyond all recognition. This is as true of expensive packages such as Microsoft Word, as of the cheapies.

The major difference with the cheap packages is that on the whole there is less to learn. Of course if a package does less, it takes less time to master. The menus will be simpler, the manuals much smaller. (A very real point: with Multimate Advantage, a highly complex word processor cum database, there are over 1000 pages of manual spread among four different volumes to plough through.) But a well designed complex package will also be accessible to occasional users who make no attempt to learn all its advanced features.

The great drawback among the cheap packages is the poor standard of screen handling that many of them show. The program may lag behind a moderately complex typist, so that words only show up

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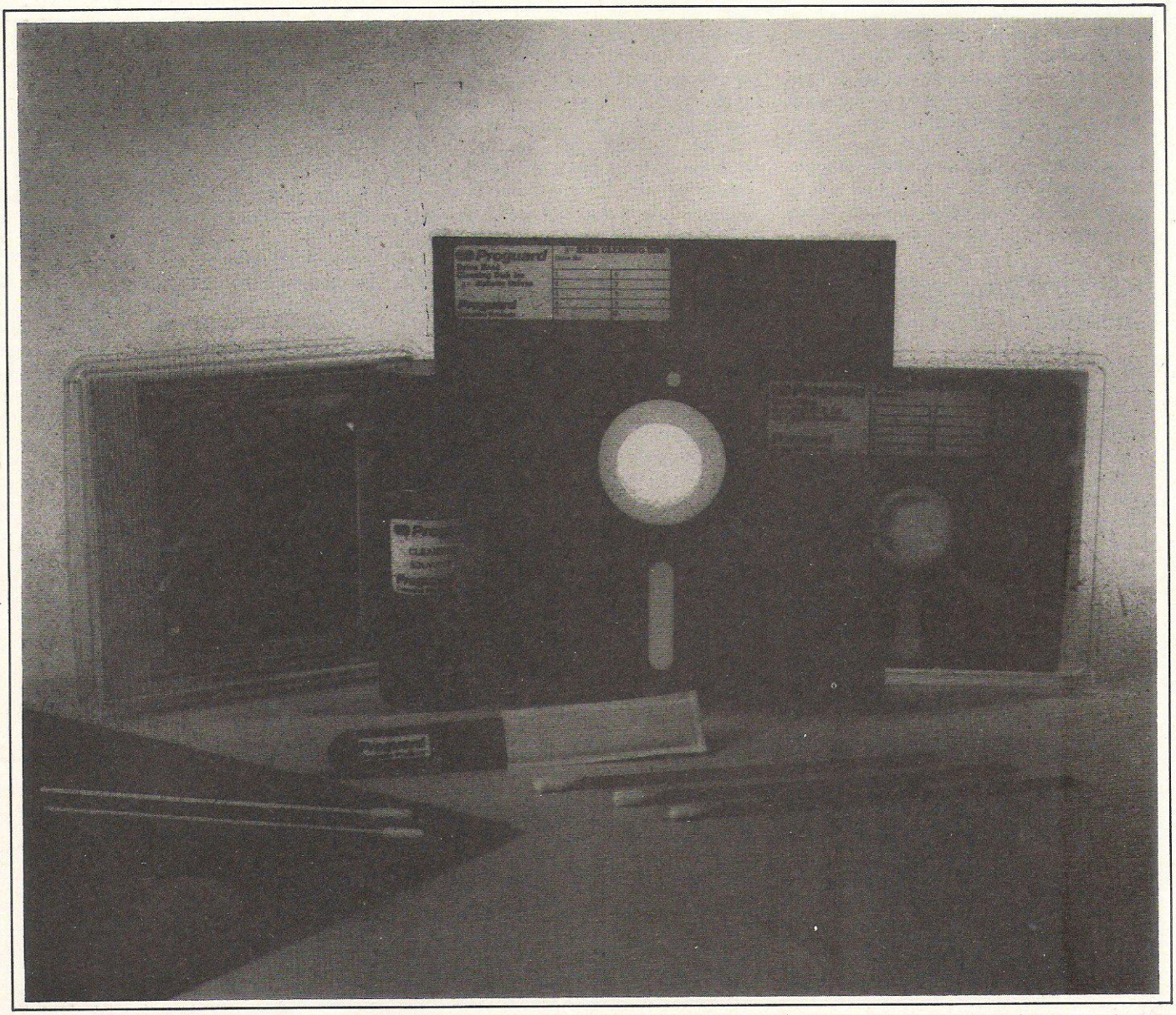

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on the screen some time after they are typed at the keyboard. Cursor movement may show particularly chronic delays. Scrolling, both down and up long documents and across wide documents, may be extremely jerky. These features do not make programs easier to use. On the contrary, they prove a real disadvantage to both regular and occasional users.

Some cheap packages also lack 'background printing' (the ability to print one file while another is being edited), a feature which is normally standard on the expensive ones.

Best Buys among the Cheapies

My favourite cheap word processor is America's favourite: Pfs:Write. It is a slick package with a well chosen range of basic facilities including a good spelling checker, and it is integrated with the rest of the excellent Pfs range. More than occasional users may however feel restricted by the lack of advanced facilities. The program is no easier to learn, in my opinion, than the best of the expensive ones.

A good alternative is Perfect Writer II, a great advance on the original Perfect Writer program, and a real bargain at around £150. This has neat pull-down menus, an excellent windowing faciltiy (which lets you hold up to seven documents in memory and refer to any two of them onscreen at once), a spelling checker plus – most unusually – a thesaurus facility, and again integration with the rest of a comprehensive range. It also has advanced formatting capabilities, but these are not particularly well integrated with the simpler facilities, and can be difficult to learn and confusing to operate.

Screen handling problems mark the other three cheap programs I am familiar with, Micropro Easy, Bonnie Blue and Vizawrite. I found the last of these particularly disappointing, because I was so impressed by the Commodore 64 version of the program. All three have good features, but oh, if only they worked more smoothly...

The Workhorses

If you are going to use a word processor heavily, then the extra £200 or even £300 on the price tag is a small price to pay for real quality, compared to the real cost in time and effort involved in mastering any program. Do look at one or more of the high-quality, high-price packages.

You will almost certainly find that the more expensive packages have wider support for peripheral hardware – including colour monitors, graphics boards and most important of all, printers – than do the cheaper ones. If you paid £1,000 or more for a high quality printer, it makes sense to pay that little extra, if necessary, to obtain a word processor that supports it fully.

Some of the best-selling packages are the long-established ones with a large user base. WordStar sells on its name; Displaywrite on IBM's name. Though both are reliable packages with powerful features, they both show their age in comparison with newer rivals. They are harder to learn and clumsier to operate. Unless you need compatibility with existing users, I feel you can do better elsewhere.

I have three favourites. All are excellent programs, with a large range of features, reasonably easy to learn, and in my experience very reliable. These are all programs I am personally familiar with, though I should stress that there are other highly-rated programs – Wordstar 2000, for example – that I do not mention simply because I do not know them as well.

The first is Word Perfect. A deceptively simple program, neatly designed, and much less pretentious than some of the elaborate ones. It comes with one modest manual and a tiny key template; its screen display is simple and uncluttered. Though it has its failings – the routine for swapping printers sometimes has me stamping my feet in fury – I generally turn back to it with relief after each new package I review.

Almost everything about Word Perfect functions smoothly and simply. Everything

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BUT MY COLLEAGUES
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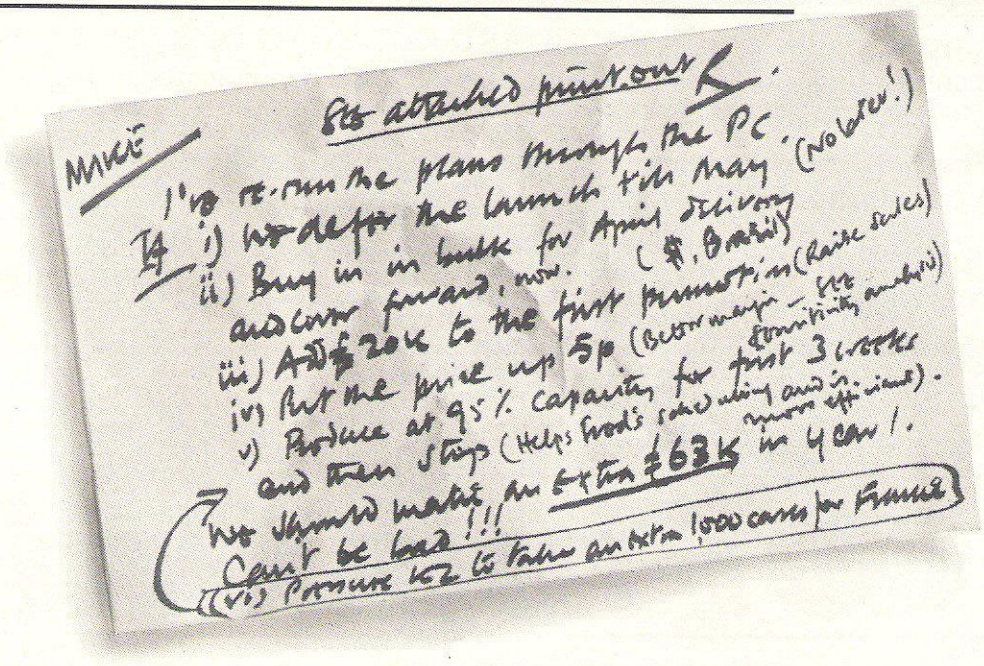
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is customisable, so my version now fits me like a glove, and after using it for a year I have yet to need any feature that it cannot provide.

Microsoft Word is a more ambitious package in many ways. It has multiple onscreen windows where Word Perfect limits itself to dual document capability; it has extremely advanced support for mice, graphics boards and other optional hardware. It is surely the ultimate package today for those willing and able to splash out on peripherals, and eager to make the best use of them.

At the same time, it is an easy package to learn, with very good help facilities and a beautifully designed training course on disc. Mouse-oriented word processing is a pleasure for good and poor typists alike, and much simplfies the chore of checking through and editing a document.

My major reservation is over Word's advanced document design capabilities, the so-called 'style sheets'. Enormously powerful for those who master them, they can be thoroughly impenetrable to novices and occasional users. If you don't want to, though, there is absolutely no need to learn or use them at all.

The last of my big three, Multimate has established itself rapidly as a big seller in the 'serious' word processing market, and with good reason. It is another powerful, well designed program. Unlike most modern programs it works with a page concept, rather than in whole documents, and this makes it extremely reliable and particularly suitable for integration with database facilities. The new Multimate Advantage package has very powerful information-handling features.

There are no multi-document facilities in Multimate, and this is particularly frustrating because it is impossible to see the end of one page and the start of the next on screen at once. A nuisance for creative writers, but much less so for many originator/secretary teams. The spelling checker is clumsy, and this is more of a drawback. Still, for business people anxious to integrate word processing with general information handling, this package is a very good choice.

Document Merging

'Merge' or 'mail-merge' facilities mean many different things to different people. If you feel you need this type of facility, then once again you should provide your dealer with specific examples of the type of work you expect to carry out, and ensure that the package you choose can cope with it.

Some programs have 'merge' or 'library' facilities that are intended not for mass-mailing type applications, but for boilerplating: fitting together standard paragraphs to make (for example) individual letters to clients. Solicitors and estate agents, for example, find it helpful to maintain a library of often-used paragraphs. Among the programs that perform this function well are Perfect Writer II, Word Perfect and Multimate.

'Mail-Merging' is more complex, because involves the linking of two files: one with a letter outline, and one with variable information that is to be fitted into that outline. Among the questions you might want to ask are the following:

I already have an address file of clients held on a database. Can I use it (without too much fuss) to produce information to be fed into form letters?

I'm willing to set up a special word processor file of client's names, addresses and other data. Does the program have a facility for printing envelopes or labels from such a file?

Can individual records from the file be selected for a particular print run? If so, how is this done? In advance, or before each letter is printed? How complex are the criteria for selecting letters?

Must the information in the file be used in precisely the order it is laid down in the file, or can it be used in variable order? (And can the same 'field' in the file appear more than once in the letter?) Obviously, the latter is much preferable.

As well as the expensive packages I mention above, an exceptionally good mail-merge oriented package (though I find it less satisfactory in other directions) is Samna Word III.

EASY DOES IT.

Managers like myself, who can almost make a PERSONAL COMPUTER sing, often make all the difference in business.

But to keep well ahead, it takes three additional things: communication, communication and communication.

Until I discovered Easy from the makers of WORDSTAR, I often found myself jotting notes to my colleagues or scribbling memos down in a hurry, only to find time wasted because no one made head or tail of my summaries - however amazing the facts and figures were.

Well look at them ! You'd have to have a degree in archaeology to decipher those hieroglyphics.

Precisely the sort of thing Easy has eliminated.

Easy is the first serious entry level Word Processing package that's easy enough for any executive - even me.

Used with IBM Microcomputers or compatibles, it produces beautifully intelligible documents like this one.

It makes altogether better use of my personal computer, eliminates the 'rough draft' or dictation stage, and with clearer letters, reports and memos, everyone's job is more efficient and a lot of valuable company time is saved.

Easy never allows you to get lost either, because the right prompts are always there to help you onto the next stage. There's also a spelling corrector, an 'undo' feature that allows you to restore accidentally deleted text, as well as many other sophisticated but easy features. Now, the mere £165 they sell it for is probably the only figure my colleagues still don't understand.

To learn more about Easy, ring your nearest distributor listed on the right.

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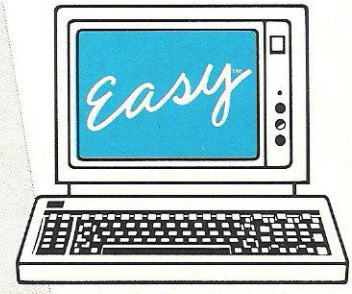

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Stock Control System

Single Screen Format displays:
Reference: Unique Stock Code/Description/Supplier
Prices: Current Unit Cost/Current Unit Sale
Inputs: Units Bought & Value to date + number of Transactions
Outputs: Units Sold & Value to date + number of Transactions
Re-orders: Minimum Stock Level/Units to re-order & Value
Update: Balance & Value of Stock/Profit of Sales

Enter & Amend Reference/Prices/Minimum & Re-order levels.
Delete Record where no Stock remains.
Input & Output Stock as Transactions or Adjustments.
Recall last entries on Inputs & Outputs with process dates.
Browse through File 'window', retaining current record on view.
Find a Record by its Stock Code.
Display previous or following Record on File.
Print Record on view.
Compare last unit Cost & Sales Prices with Current preset Prices.
Update total Number of Lines, Stock Value, Inputs & Outputs.

Scan Reference fields by either order-of-input or sorted sequence.
Available to Screen or Printer are:
Re-order Stock Schedule: Stocks below preset Minimum levels.
Valuation of Stock in Hand: Balances carried forward.
Deletions: Reported by Reference only.
Output to Printer only:
Financial Report: Inputs & Outputs to date.
Current Prices - Unit Cost, Unit Sales & Margin.
Physical Stock Take Sheet: Space for 'actuals' & 'differences'.
Transactions Report: Inputs & Outputs for process date.

Rename File
Sort File by any Reference field.
Disk Directory/Format Data Disk
Printer - Line Feed & Controls
Decimal Placing for Units & Prices

Price

Disc. £34.95

DFM DATABASE
& Mail Labels.

Fully user definable Record Base
Create up to 15 Fields per Record
Define Field Headings Fields may be Alphanumeric (up to 36 characters)
Fields may be Numeric to 9 figures (zero 2 decimal places)
File Name may be changed at any time

Find Record by Key Field or (allocated number)
Amend Field Heading or Record Data
Calculate or Totalise on Numeric Fields
New Records may replicate from last Record viewed
Print or Delete Record on display
Move to Next or Last Record
Automatic Scroll forward through File (with Stop option)

Enter Details and Field selection for Search
Criteria may be specific or wild-card
Related numeric field information may be totalised
Specific Numeric Field Searches offer conditions of less than/equal to/greater than (operands)
All Results may be output to Screen or Printer

Offers printed reports on selected Field
Full File Description is available for report planning
Field Totals will be output for any Numeric Fields
Define Label Print Format
Selectable Single Label Printing

Sorting may be performed by any Field type
New Key Field Index may be displayed

Utilities incude Memory Available & Disk Handling routines

Price ☐ C64 £19.95 ☐ C128 £24.95

Home Accounts Manager

HOME ACCOUNTS MANAGER is a comprehensive home management system designed to assist in the maintenance of any household budget. There are 4 major options from the main menu as follows:-

2. BANK ACCOUNT After entering details of your bank, branch and account number, you are able to enter all standard bank transactions, such as receiving payments, issuing cheques, setting up standing orders, entering bank charges, entering cash dispenser transactions and obtaining a bank statement to the screen or to a printer.

4. UTILITIES This option has a number of useful features plus full loans calculator for fast estimates of loan repayments.

1. HOME ACCOUNTS Day to day expenses are entered and will be collated by the program to produce detailed expenditure reports to the screen or to a printer. Cheque payments are automatically posted to the bank account.

3. ADDRESS FILE You are able to enter up to 50 names, addresses and telephone numbers into a file which may then be sorted into aphabetical order, searched for particular names, scrolled in forward or reverse directions, or re-entered at a specific record number.

Price ☐ C64 £19.95 ☐ C128 £24.95

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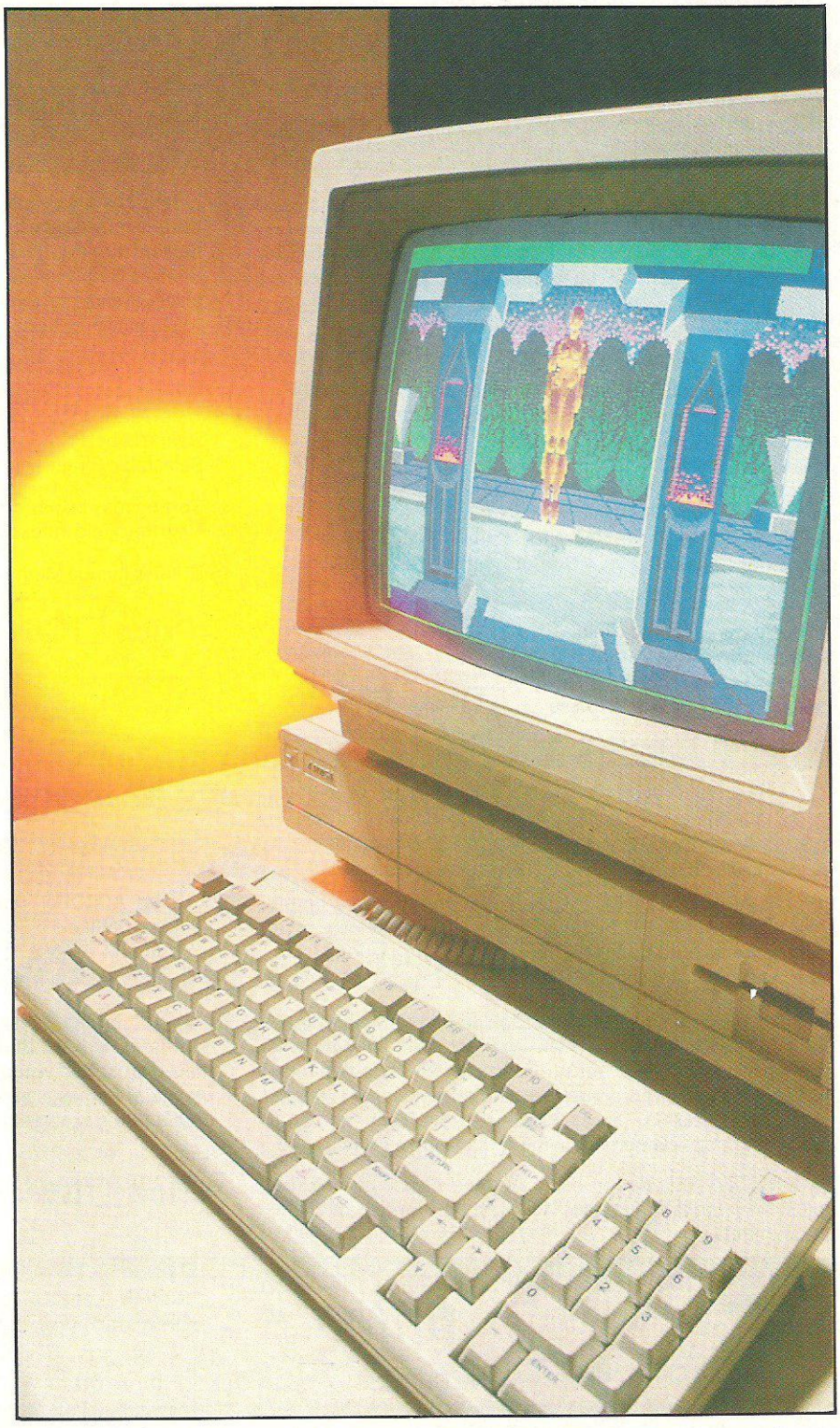
C128 Software Now available. Phone for Details

Amiga Developments

The Amiga named Computer of the Year by the 'Observer' newspaper may be a marvellous machine, but its future success depends on the software available for Amiga buyers. So Commodore brought together key people from interested companies in an Amiga Software Development Conference held in Eastbourne on the south coast of England. Commodore Business Magazine reports on the conference.



The Story So Far.

America

When Commodore first announced that the Amiga would be the spearhead of their attack on the high-end home/low-end business market, not too many people knew much about the small Californian company that had designed the chips.

Within a year, Amiga was an industry buzz-word, Jack Tramiel was throwing law-suits about, and Commodore were the owners of the most impressive microcomputer ever.

However, it was not until the computer's specification was first leaked out that the technical people really started paying attention.

A computer with graphics capabilities normally associated with CAD workstations, sound synthesis of a quality unlike anything before, and perhaps most excitingly, true multi-tasking brought the Amiga instant recognition as the outstanding new computer of 1985.

It was a long time in between these details being heard, and anyone actually seeing the machine, but when they did, all the normal terms for describing a computer went out the window in an attempt to do this product justice.

It was so well received because of two real factors. Firstly – and most importantly – it lived up to its pre-release hype. Secondly, Commodore had been far sighted enough to include the user friendly aspects of the Macintosh that were making Apple's machine such a success both at home and in business.

When it was launched in America, in May 1985, Commodore organised an enormous industry party to promote the Amiga. It was at this bash that the Amiga showed its true colours. Everyone who attended, to whom I have spoken, could do nothing but rave about the computer.

To show off the Amiga's true potential Commodore enlisted the help of 'celebrities' such as Andy Warhol, who admirably displayed the Amigas artistic talent (as well as some of his own) in exceptional original graphics.

To coincide with the arrival of pre-production Amigas for America, Commodore decided it would be a good idea to have a conference for all the developers of software and hardware to attend. This would give Commodore a chance to judge their reaction to the machine, and the developers a chance to ask the more technical questions that they otherwise might work around.

Held in Monterey, California, the conference was a great success – mainly due to the attendance of principal people behind the development of the machine, including the designer of the custom chips, Jay Minor.

From then on the machine took off in America, and Commodore was assured that these people were producing appropriate software for this outstanding machine.

UK

Europe and the UK are really way behind America as far as the Amiga's concerned. We cannot walk into any one of 600+ computer retailers and buy an Amiga for $1295, but don't be too upset. In some ways this should come as a relief, as I'll explain later.

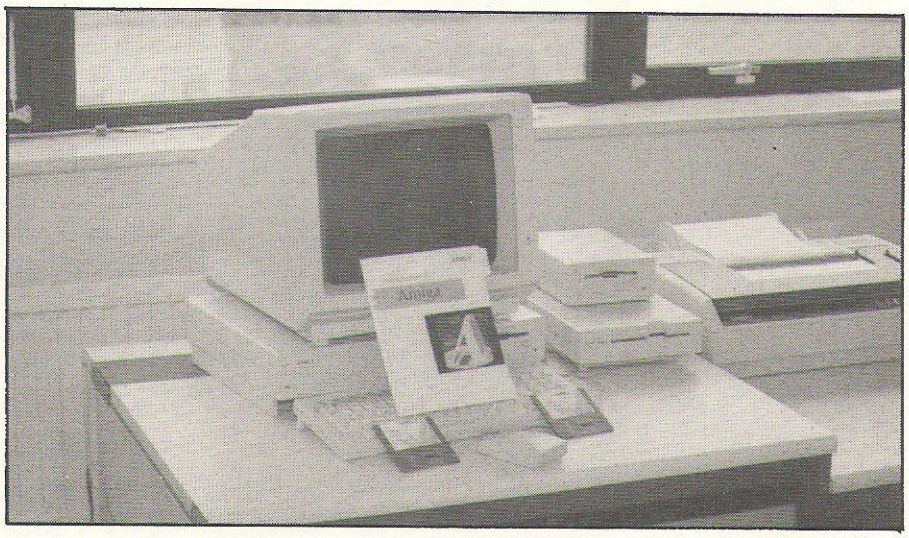
The Amiga's story in the Europe is much more one of waiting. Due to the fact that the machine is so outstanding, we heard about it quite a while ago, and many people were very excited at the prospect of its imminent arrival. This reached such a stage that I know some people who went to America to purchase them, rather than wait for Commodore any longer.

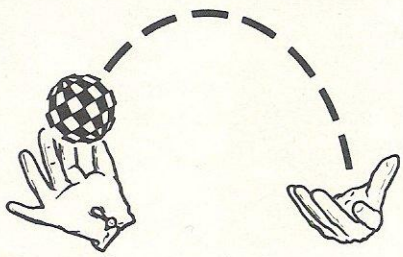
When it was first previewed in England, at a small press conference at Metacomco's offices in Bristol (the people who designed AmigaDOS), the machine astounded everbody with its multitasking abilities – but not much else.

The next showing – a press/industry affair at the PCW show – was much more complete, showing off the Amiga's graphics and sound brilliantly, and causing many an ohh and ahh from the crowd!

Publically however the Amiga had still not been shown! It is this, more than any other single factor, that has managed to build up such a level of frenzied excitement about the machine.

Shown for the first time at the Which Computer Show in January, the Amiga is still not finished for the European market, and I do not expect to see them on sale at least until March or April, perhaps later.





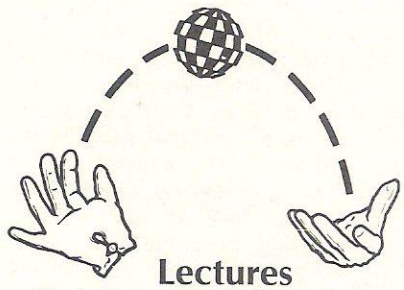
The Conference

In the UK, Commodore Electronics were the people who decided that we ought to have a Developers Conference similar to the one in Monterey. With more development packages being shipped everyday, there were, by this time, many people in Europe who had started, or were just about to start, writing or making things for the Amiga.

Although Eastbourne doesn't have the same ring as Monterey, the Conference was set for 1-4th of December 1985; and I duly booked my place and arrived early enough to have a good look around.

Gail Wellington, Head of Commodore Electronics in England, was the main Commodore person there, and it was she who gave us the statutary 'Welcome' speech and some of the introductions.

Proceedings really began in earnest on Monday with the first of a semmingly endless stream of lectures, some technical, some very technical. It was these lectures that formed the backbone of the conference.



Lectures

The lectures were all of a similar formula. A representative of Commodore or Amiga, depending on what the subject was, would give a talk – using demonstrations where necessary, and then a general question and answer session was opened at the end. With over 12 lectures crammed into three days, it was pretty hard work. All credit must go to the American Amiga representatives who really made the going much easier.

The first two lectures were pretty general. Gail Wellington spoke on how the Amiga was to be marketed in Europe, using examples from America to show where they intend to break into the business market, and in what quantities they expect the Amiga to move. She told us that they expect the Amiga to make 57% of its sales to Business Users, 28% to home users, and 15% to education.

John Baxter, Sales and Marketing Manager for Commodore Electronics, was next and he gave a lecture on the opportunities that the Amiga offered developers. Citing such piquantly unusual examples as: i) A funeral service management system.
ii) A golf swing analyser.
iii) A landscape gardening program.

As well as these he referred to the Hardware possibilities of the machine, as many developers are considering working on expansions for the machine.

There was then a brief Amiga demonstration showing all the old favourites such as the now statutory bouncing ball and Robot City. There were, however, some other interesting demonstrations which I will refer to later in my 'Software Summary'.

After lunch the technical stuff really began with a lecture on the Amiga System Architecture. This amounted to an in-depth look at the specification of the machine, with details on all the custom chips as well as the hardware

configuaration and available peripherals.

Soon after this was the 'Introduction to Hardware' lecture. In a simple way, the lecturer, who was head of hardware development of Amiga, explained the ins and outs of the Amiga's hardware functions. The architecture of the chips was also discussed and their final (?) names were given. They are: Agnus, Denise and Paula.

The next day saw a really complicated lecture on the System Kernal, followed by a lecture from Tim King (the Englishman who wrote AmigaDOS) on its more invoved aspects – though he did seem to spend much of his time being asked why the DOS wasn't as fast as it could/should have been!

The last lecture before lunch was a really interesting one on the Amiga's speech and sound facilities, with the lecturer going into depth on the intricaries of achieving decent speech, and the technicalities of wiring up the MIDI Amiga – via a interface – to a MIDI keyboard, something which when achieved could lead to some really spectacular results, to say the least!

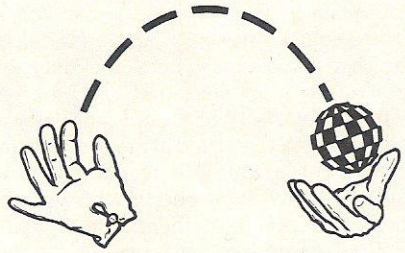
After lunch came the most packed lecture of the whole three days. Dale Luck (a very likeable young man, who is an absolute genius when it comes to graphics on the Amiga – and so he should be as he helped write the systems software) gave a lecture on graphics. He went into great depth on the 'Blitter Object', which is basically the Amiga's most amazing graphical function – allowing you to create some really stunning animation.

As well as talking about these, he showed us some excellent three dimensional rotation demos which showed how powerful and easy to program the Amiga can be – when you know what you're doing!

Intuition, the software interface that the average user of the Amiga will see (and that the programmer will have to know an awful lot about) was the last and funniest lecture of the day. Intuition is the part of the Amiga that provides pull-down menus, gadgets, requesters and alerts – in al 'better-than Mac' way, and this lecture discussed how these could be used to full advantage.

By Wednesday, the last day of the conference, most people had spent quite a while using any one of the Amigas that sat in reception throughout the conference and all of us had become much more convinced by Commodores commitment than we had expected. The last morning consisted of another lecture on Intution followed by an excellent one on the Workbench, which is bascially the utility that allows you to make the most of the Amiga.

Before we all went home, there were a series of workshops, with each person attending the one he saw as most important to himself. I'd love to tell you about all of them, but I went to the graphics one and watched Dale show us some of the amazing tricks he has learnt, including how to create sixteen colour pointers of Garfield!



Software Summary

Perhaps the most important pieces of software at the conference were the new 1.1 versions of the Kickstart and Workbench disks. These versions will have hopefully cured some of the earlier problems. The kickstart provides no visible differences, but the workbench provides such exciting new additions as a calculator, and a really nice Icon Editor.

On the leisure/entertainments side there were quite a few exciting products around. Commodore gave us a brief look at a game they will be releasing called 'Wynd Walker'. Although the actual game doesn't look vastly amazing, the sound was totally awesome. When this one comes out it really should be worth it! Also shown was Commodore's range of low-level business utility programs: Musicraft, Graphicraft, and Textcraft.

Electronic Arts, whose VP of Development Tim Mott was at the conference, showed a truly incredible paint program, suitably named Deluxe Paint. This has produced some of the most amazing graphics you have or will ever see on a micro! If you watched the Micro-Live programme featuring the Amiga, you would have seen a brief demonstration of this truly incredibly program.

Also floating around was a version of Activision's Harker for the Amiga, with some lovely views of famous towns making it a really worthy program.

Summary

Overall the conference showed one thing. There are many people who are putting a lot behind the Amiga, not least Commodore themselves. They want it to be a success and are doing their best to see it is, as are the developers. I truly hope it's a sucess. It certainly deserves to be!

Francis Jago

Custom Animation Chip

- Bit Blitter – uses hardware to move display data
  - allows high speed animation
  - frees the CPU for other concurrent tasks
- Display synchronized coprocessor
- Controls 25 DMA (Direct Memory Access) Channels
  - allows the disk and sound to operate with minimal CPU intervention

Custom Graphics Chip

- Many different resolutions
  - 320 X 200 up to 640 X 400
- 4096 colours on a TV or RGB monitor
- Eight re-usable sprite controllers
- 60, 80 Column coloured text
- Same software for all TV's and monitors

Custom Sound/Peripherals Chip

- Four voices of sound output configured as two stereo channels
- Nine Octaves
- Complex waveforms
- Uses both amplitude and frequency modulation
- I/O controls for
  - disk data
  - joystick controller ports
- Microdisk Controller
- Interrupt Control System

Hardware Configuration

- Built-in 3.5" DS/DD FDD
  - 880K formatted capacity
- Detached keyboard
  - 89 keys
  - numeric keypad
  - cursor keys
- 2-button mouse
- External floppy disk port
- Parallel port – centronics compatible
- Serial port – RS232C
- Stereo audio – RCA phone jacks
- TV and RGB interface
- Expansion RAM
- Expansion interface

Hardware Features

- 68000 Microprocessor
  - 7.2 MHz clock speed
  - 16 – bit data bus
- 256K Bytes RAM
  - user expandable to 512K Bytes
  - configurable to 8M Bytes
- 256K Bytes Write Protected RAM
- 3 Custom VLSI Chip
  - Animation Chip
  - Graphics Chip
  - Sound/Peripherals Chip

Amiga Software

Y2 – Communications Software

"The Amiga makes it difficult to produce a finished product, because it is so easy to keep adding different touches," says Rob Eva of Y2.

Y2 are in the process of developing terminal software for the Amiga. Their first package, which is anticipated to be shown at Which, is a Prestel terminal.

Eva says: "At Which we plan to have a phone line and modem showing the Prestel database. By that time the product should be suitably demonstratable."

He continues: "The sheer speed of the Amiga makes what we are doing so much better. No other machine has ever offered this speed."

Y2 also plan other terminal software including EPAD to access Telecom Gold.

Further plans for the Amiga include a package for bore hole inspection utilising the Gemlock device, the feature which mixes graphics and pictures.

Taurus Impex – Integrated Business Software

Taurus are developing an integrated package of a spreadsheet, word processor and database for Amiga.

"It's designed to be all things to all people," says Peter Molineaux. "We have got a version for the IBM PC which is similar to Symphony. The Amiga meant a total rewrite to take advantage of the window functions and pull down menus".

Going under a working title of Cluster, the package is designed to be user-friendly.

Molineaux says: "If you are a manager with no interest in programming you just want to produce a screen that will become a database.

"The nice thing is that within the database you can have fields that are spreadsheets".

Another feature of this package is the facility to produce a program in either Pascal C or Basic which enables a programmer to modify the package.

Molineaux says: "The Amiga is a super machine. It is very fast, which is great for development, but the disk drive is still slow."

Software houses reveal their plans for the development of software for the Amiga.

Cygnet – Publishing software

Front Desk is the name given to the publishing package under development by Cygnet. Three versions will eventually be available: amateur (up to A4), semi-professional (up to A3) and professional (up to A1).

The amateur series will be the first to be completed. It comprises four packages, all multi-tasking and concurrent: Front Desk, Font Editor, Laeser Drivers and Illustration.

Every aspect of page production is covered. To create text, there is a library of 32 fonts supplied while the Font Editor allows you to edit or create your own fonts.

Front desk is fully compatible with packages such as Textcraft, Wordcraft, dBase II and III, and Delux Paint.

A vast variety of graphics and technical drawings can be produced. These can be expanded, reduced, moved, flipped, rotated, etc.

The Laser Driver allows you print out on a selection of printers including Hewlett Packard, Canon, Apple and Epson.

Cygnet's Jay Savoor says: "The amateur series is aimed at the home market; semi-professional at small printers and the Prontaprints of this world; and the professional at publishing houses.

"There are other typesetting packages available," he continues. "But none are as flexible. Without a machine like the Amiga it would not have been possible."

3D – Process Control software

The Amiga becomes the equivalent of the human operator with software being developed by 3D.

Think Lab is a processor-based system which allows the computer to monitor signals from temperature and humidity sensors. The computer can then take control of external forces in industrial plants.

3D's Kr Kibasi says: "Applications in the process control industry require a multi-tasking facility which is, of course, built into the Amiga.

"We are hoping to bring out a number of products compatible with the Amiga processor for industrial, design, medical and educational purposes."

3D have systems running on other Commodore machines including the PC10, but none are as powerful as the Amiga version.

"It is a very good machine," says Kabasi. "We are trying to convert all our software and hardware to this machine.

"We have only had the Amiga here for four weeks, but we've already used it for 400 hours and people are queing to use it!"

The Printing World

What is happening and what is going to happen to the vital and fast changing world of printers? A leading manufacturer and a top distributer tell Commodore Business Magazine – and you – how they see the future.

Mannesmann Tally are part of the Mannesmann Group – a large German conglomerate with interests in heavy industrial material handling, but with an expanding interest into high technology areas.

At the end of the '70s Mannesmann bought Tally. The whole group became Mannesmann Tally and is run from a head office in Germany. There are three factories, in America, Vienna and Germany, plus subsidiaries in Austria, France, Italy and the UK.

UK Managing Director, David Archard, explains: "In every other country we have outlets which we view as distributors. If, for example, you want to buy a Mannesmann Tally printer in Finland, we have a distributor in Finland.

"We are the largest European manufacturers of printers."

Archard says that it is only recently that printer manufacturers have considered setting up assembly plants in the UK, and that is mainly due to the exchange rates.

"We have been in the printer business since the beginning of the '70s," says Archard. "We were responsible for the first line matrix printer, a product which was extremely successful.

"We licensed our technology to Hewlett Packard in the '70s and they have now built on that."

Mannesmann Tally use distributors in two ways. There are distributors in various countries.

"As a representative of Mannesmann Tally, they are expected to provide a full after sales service," says Archard.

"If you like, we could almost call them a mini-subsidiary in the way we view their responsibility."

In the UK, Mannesmann Tally have a policy of selling to the trade. Generally the end user market is not one of the company will deal with directly.

Archard says: "We supply small computer dealers directly – we call this Mannesmann Tally Direct."

Mannesmann Tally place great emphasis on supporting the customer. "We have a reputation to keep," says Archard. "We will never be the cheapest supplier, but anyone buying our products will get a superior product and superior service."

Over the last few years, certain trends have emerged in the printer market.

Mannesmann Tally have noticed that customers have become less prepared to make commitments.

"I think people now understand that the market is volatile," says Archard. "Unfortunately a lot of people think that the fall down in the States is going to happen over here."

In response to this trend, Mannesmann Tally is beginning to provide a similar service to dealers in that orders are placed and received the next day in some circumstances.

"It's a very competitive market," says Archard. "People are having to work harder to get business."

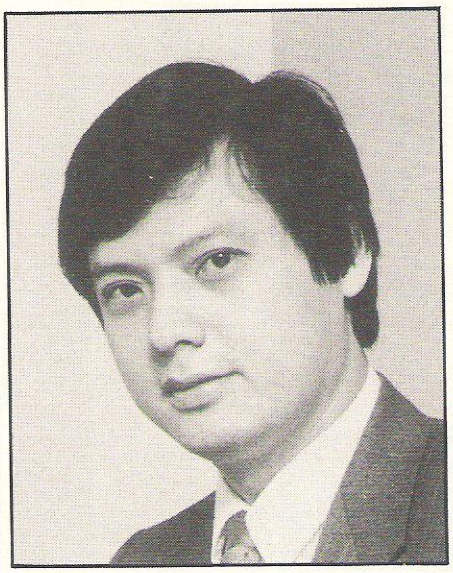
This has resulted in another trend, that of special offers.

Archard says: "We have to at least have a competitive product offering, not only in terms of performance, but in pricing.

"We have found that we have had to become more active in terms of promoting our products. Our range of products is probably the widest around, ranging from 100cps printers up to 900 lines per minute.

"Mannesmann Tally have been watching the non-impact printer market very closely and we can expect an announcement of a product such as a laser printer in early spring.

"We have a number of new products on starting blocks for this year," says Archard. "We will be launching both impact and non-impact models."



As distributors of printers, DDL do not recommend one printer over all others. They offer a range covering the whole spectrum of user requirements from the small home user to the business user. When a dealer contacts them, they listen to the end user's requirements before suggesting any particular printer.

Managing Director, Jeff Yong comments on recent developments in the printer market: "We have seen the emergence of new technology such as the laser printer," he says. "Although a lot of people are pulling back on the laser market. Information I have received from Japan is that the market worldwide is not as large as anticipated in order to make it economical.

"What you are going to see is a lot of manufacturers all having a small chunk of the market. I believe many people will pull back from laser printers."

Meanwhile Yong says that the dot matrix printer has established a firmer footing.

"People were saying that dot matrix printers had seen their days," he says. "However NLQ technology has really brought the dot matrix back into the forefront."

Colour printers have still only a limited demand, a fact Yong believes relates to the limited number of software packages utilising colour.

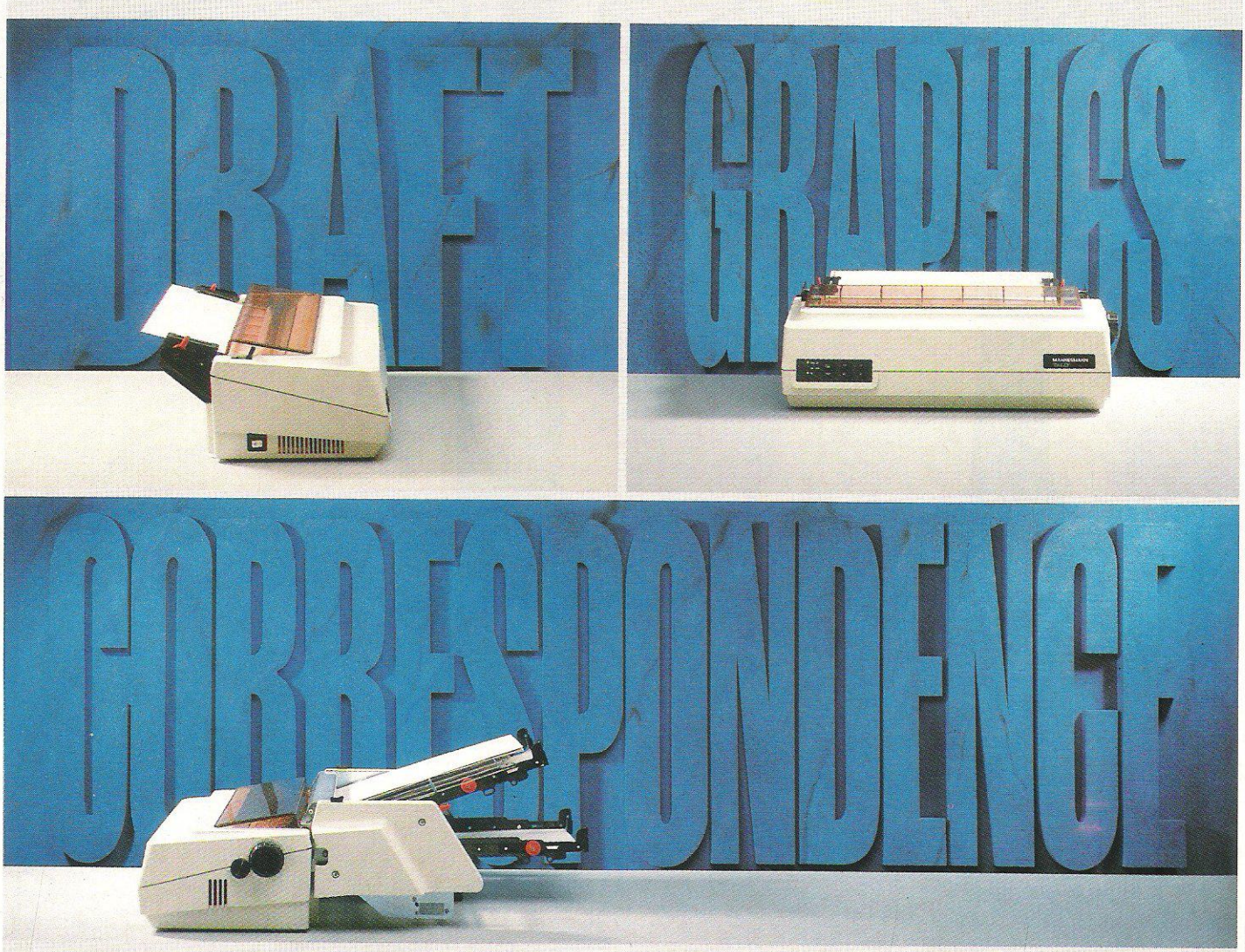
He says: "At the moment there isn't the demand. It is more costly because of the cost of the ribbon and the number of times a user requires colour. I don't think it will be long until colour printers come into acceptance, though."

According to Yong, we will soon see the demise of small printer manufacturers in the same way that we saw many small software houses going out of business.

He says: "All the smaller manufacturers coming out with yesterday's printers at half the cost will go out of business. We shall end up with just the big names manufacturing printers."

Experience prompts Yong to believe that the quality of a product bears no relation to the cooperation received from the manufacturers themselves. He makes a plea for more technical support, more promotion, and a closer working relationship. "It's beginning to happen, but we still have a long way to go."

Three ways to look at the new MT290 printer



Whichever way you look at it, the new MT290 is a remarkable matrix printer. You'll find the answers to all your printing requirements in this one machine.

In draft mode it delivers clear, crisp text at 200 cps. In correspondence mode it generates high "letter" quality print at 50 cps. A variety of typestyles using optional plug-in font cartridges are also available. While the graphics mode allows a visual dimension to be added to reports and documents. So, here's the perfect printer for today's integrated business software packages.

Not only this, but the MT290's paper handling capabilities put it in a class of its own. Tractor and friction feed are standard. Then there's an optional twin tray sheet feeder for multi-page documents and an auto front feed for demand printing. The MT290 is both hardware and software compatible with most popular micros including the IBM PC.

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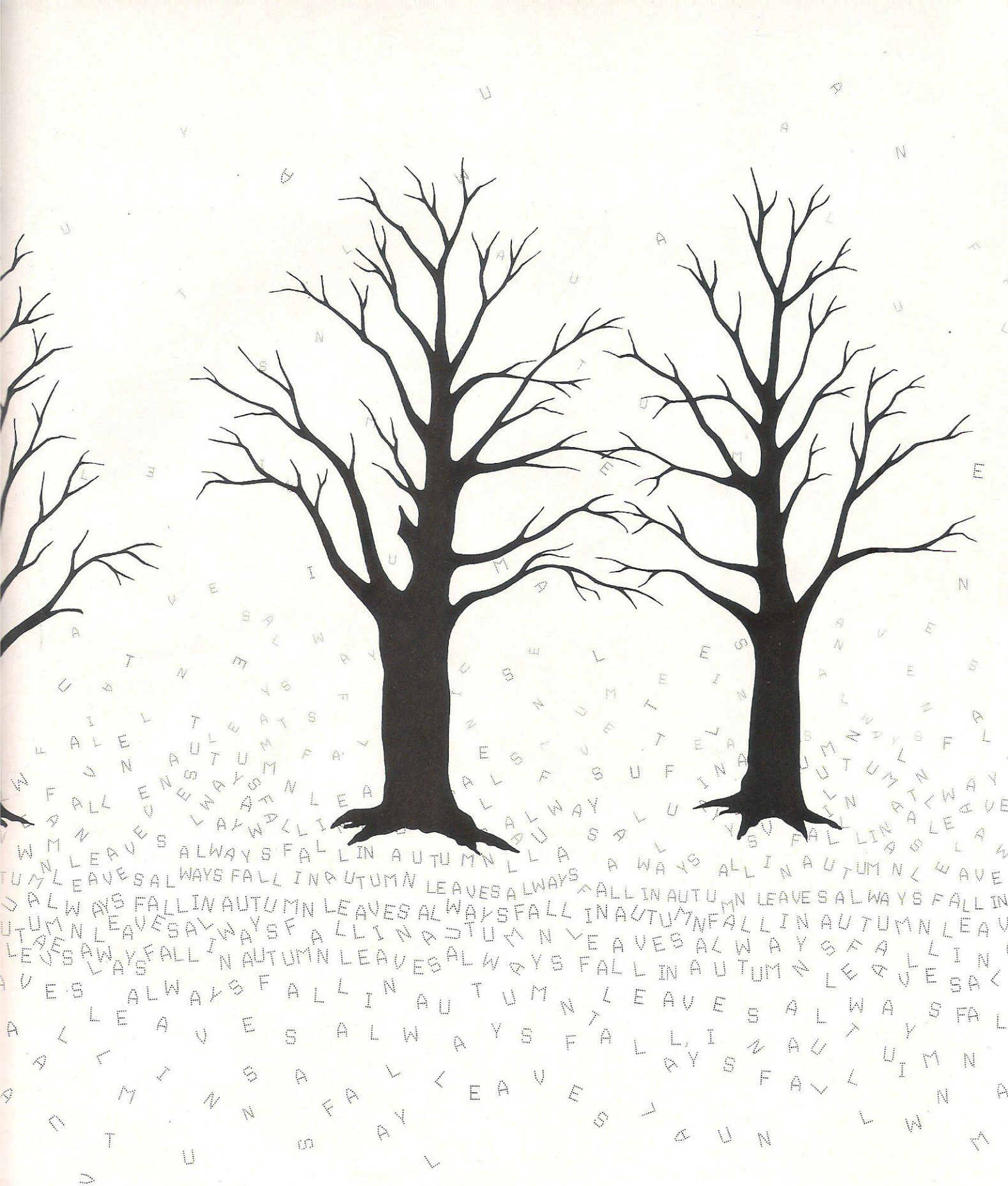

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NLQ Printers

Francis Jago evaluates a selection of near letter quality printers compatible with Commodore's PC10 and PC20

Mannesmann Tally MT290

One of the easiet printers to come to terms with in this round-up was the MT290. With a built in Centronics and optional Serial, the printer should theorectically interface to anything.

The tractor-feed, a small (ish) addition to the back proved easy to load and, more importantly, it behaved impeccably throughout the tests.

Neatly housed in a beige case, the MT is very easy to use, the six buttons on the front providing all the functions you could need, including a very simple ON/OFF system for the NLQ.

The only real criticism I would venture to level at the 290 is purely one of taste – I don't like those oversquare typefaces, they have been adopted by printer companies as they seem to think it shows a high-tech image. They really ought to stick to the more usual fonts – which are available, but you must pay. Apart from that it's a good, fast (200 cps draft, 50cps NLQ), high quality printer.

Price: £699
Print Quality: ***
Value for Money: ****
Overall: ****
Contact: Mannesmann Tally Ltd, Moly Millars Lane, Wokingham, Berks RG11 2QT. Tel:0734 788711.

NEC Pinwriter P2

The one feature which really endeared me to this NEC printer was the ease with which you can change from one print font to another. Having different fonts built-in is a rare feature, but the NEC – with its easy to use LEDs – makes it easy to get the most out of the really pretty NLQ fonts.

Being mid-priced, the NEC has quite a few features you wouldn't really expect, but it also lacks features that some businessmen may view essential such as a tractor feed, which is an optional extra.

Overall a good printer, and if you need a variety of typefaces and fonts it could prove a real assett.

Price: £455 + VAT
Print Quality: **** (especially fonts)
Value for Money: ***
Overall: ***
Contact: NEC Business Systems, 35 Oval Road, London NW1 7EA. Tel: 01-267 7000.

Olivetti DM 280/1

This is Olivetti's attempt to make an indentation into the Epson dominated low-end business market. The DM 280 has all the functions of the FX-80, but unlike the FX-80 our review model also had a host of problems!

Amazingly Olivetti's manual seemed almost totally unsuited to the machine – even to the extent that, when setting up to the machine to run on the PC, the recommended dip-switch settings were wrong!

More problems occured when using the tractor feed. Although neat enough to look at, it has the unacceptable tendancy to chew up the paper, something it did in fact more often than not.

Even the print quality was not that special, with a tendency to fade and have graduated grey. At first I blamed this on the ribbon, but it was the same with a new one, so it must be a printing fault.

Overall, not a printer I would recommend, however inexpensive it is.

Price: £390
Print Quality: **
Value for Money: *
Overall: *
Contact: Olivetti Peripheral Equipment, Olivetti House, 86/88 Upper Richmond Road, London SW15 2UR. Tel:01-785 6666.

Fujitsu DL2400

To review a colour printer with the PC is not something that normally occurs. By this I mean that there can't be too many Commodore PC owners out there who could take full advantage of the Fujitsu's facilities.

As an expensive dot-matrix printer, the Fujitsu stands out above the crowd any way. Although it may not be the fastest of all the printers in its price range, the print quality is very good, and the extra font cartridges – easily fitted to the front of the machine – allow for a wide variety of different texts.

The graphical capabilities of this printer, especially using the colour cartridge are very impressive. As it allows you to choose between a wide variety of protocols (Epson JX80, Epson FX80, as well as the IBM Range) you should be able to dump any graphics from a wide variety of programs.

If you need a colour printer, or if you can justify this price for an all purpose dot matrix, then I must recommend the Fujitsu – its only failing is that it's a bit fiddly!

Price: £1110
Print Quality: ****
Value for Money: ***
Overall: ****
Contact: Fujitsu, 54 Jermyn Street, London SW1Y 6NQ. Tel: 01-408 0043.

Samleco SX86

This is the cheapest in the Samleco range of NLQ printers and, as such, must be one of the cheapest NLQ printers about. It prints at the very respectable speed of 120 cps draft, with an NLQ speed of somewhere around 25-30 cps.

To be honest, I think the Samleco fits better in the low end of the PC market. It is ideal for the businessman who uses a daisywheel or high quality printer at work, but needs a good, cheap and reliable printer for home, plus a good NLQ mode if needed. Available with either a Centronics or Serial Interface, the Samleco came out well in our test, though the ribbon was a nightmare to fit!

At a price like this I cannot see the Samleco failing. It goes head on at the more well-known names with an equally good product for less – watch out Epson !

Price: £229 + VAT
Print Quality: ***
Value for money: ****
Overall: ***
Contact: Samleco Computer Services Ltd, SCS House, 9 Fairacres Industrial Estate, Dedworth Road, Windsor, Berks SL4 4LE. Tel: 07535 54717/8/9.

Citizen MSP-10

Citizen, a new name in printers – at least as far as the U.K is concerned – have decided now is the time to release their wide range of Epson/IBM compatible NLQ printers.

The MSP-10, a printer in direct competition with Epson's much favoured FX-80, is a extremely neat looking package (in fact it must be one of the thinnest printers I have ever seen!). With speeds of 160cps draft quality and 40cps NLQ, it is again directly compatible with the Epson, and the NLQ is really very crisply formed indeed.

Overall the Citizen is a very nice printer, my only real criticism is the noise level – which did seem excessive. For someone looking for this type of printer I think the Citizen makes a very sensible choice.

Price: £395 + VAT
Print Quality: ***
Value for money: ***
Overall: ****
Contact: Citizen Europe Ltd, Wellington House, 4/10 Cowley Road, Uxbridge, Middlesex UB8 2XW. Tel:0895 72621.

PC— compatible Printers

Continuing our list of printers compatible with the Commodore PCs.

Product	Features	Price	Company
Taxan KP810PC+	80 print. 136 col. 10ch/p/inch	£499	DDL
Taxan KP910PC+	160 cps dr. 27 NLQ, wide carriage, 10 ch/p/inch	£399	DDL
Colourjet 132	36 colour, 16 colours, low resolution mode	£569	Intergrex
Matrix DX86	120 cps, directional 132col. 136 condensed print. 18" x 18". NLQ 96 char.	£219	Samleco
Matrix DX85	80 col. directional	£219	Samleco
Matrix 136	132 col. 224 print	£329	Samleco
Printstar 5025	24 pin high duty cycle. 200 cps draft 100 NLQ skip function – high through – put.	£1250	Nissei-Sangyo
Microline 192	80 col 160 cps 55 draft clean hand ribbon cartridge.	£399	X-Data
KX/P1091	80 col. 120 cps draft 24 cps NLQ	£285	Panasonic
KX/P1092	80 col. 180 cps draft 28 cps NLQ	£395	Panasonic
KX/P1592	136 col. 180 cps dr. 28 cps NLQ	£495	Panasonic
KX/P3151	132 col. daisy wheel 22 cps print speed	£595	Panasonic
F/X85	100 cps dr. 80 col.	£438	Epson
L/X80	100 cps dr. 80 col.	£255	Epson
L/X1500	24 pin head. Faster 680 cps	32K buff £1025 2K buff £995	Epson
SQ2000	inkjet printer 132 col Quieter..	32K buff £1925 2K buff £1825	Epson
DM280/1 /2	centronics dual 80 col 160/35 cps single manual feed	£390 £440	Olivetti
DM290/1 centronics /2 dual interface	132 col tractor feed standard	£485 £540	Olivetti
DM285/1 centronics /2 dual interface	80 col tractor feed standard.	£475 £525	Olivetti
DM295/1 centronics /2 dual interface	80 col tractor feed	£590 £640	Olivetti

Product	Features	Price	Company
DM5305	132 col 300 cps 300/120 NLQ	£1143	Olivetti
DM580	132 col 192 dr. 48 NLQ	£1189	Olivetti
Sprint 12/20	Single sheet feeder fixed interface	£549	Qume
Sprint 11	changeable interface. sheet feeders & tractors optional.	£2800	Qume
MSP/10	80 col 160 cps 40 NLQ	£395	Citizen
MSP/15	132 col. 160 cps 40 NLQ	£500	Citizen
MSP/20	80 col 160 cps 40 NLQ	£395	Citizen
MSP/25	80 col. 200 ch/p/sec 50 NLQ	£700	Citizen
1200	120 ch/p/sec 25 NLQ 80 col.	£235	Citizen
DL2400	24 dot low noise auto. cut sheet 180 cps dr. 60 cps NLQ 7 colours	£1110	Fujitsu
DX2100	half size 80 col.	£560	Fujitsu
DX2200	9 dot 220 cps dr. 44 cps NLQ 136 col.	£690	Fujitsu
Seikosha BP5420Ai	18K buffer 420 ch. 106 NLQ 132 col 10" per sec	£1595	DDL
Seikosha BP5420i	parallel only 4K buffer	£1495	DDL
Seikosha BP5200i	206 ch/p/sec 103 NLQ parallel only 3" p/sec 4K buffer	£1095	DDL
Seikosha SP800i	80 col 80 cps 20 NLQ	£249	DDL
Microline 193	132 col. switchable memory.	£549	X-Data
Microline 84	200 cps 132 col.	£898	X-Data
Pinwriter P2	80 col. 180 draft 35 NLQ	£455	NEC
Pinwriter P3	136 col. 35 NLQ 18 pin print	£609	NEC
Pinwriter P5	24 pin 264 draft 88 NLQ	£984	NEC
MT85	Quiet. 80 col. 180 cps	£369	Mannesmann Tally
MT86	136 col. 45 correspondant mode.	£469	Mannesmann Tally
MT290	Professional printer. 200 cps draft. 50 cps NLQ	£699	Mannesmann Tally
HR5	Bi-directional 80 col. 16 cps	£110	Brother
M1009	80 col tractor feed 50 cps	£154	Brother
M1109	Centronics 50 cps bi-directional	£152	Brother
1509	180 cps 136 col.	£495	Brother
20204L	160 cps draft 96 cps NLQ	£995	Brother

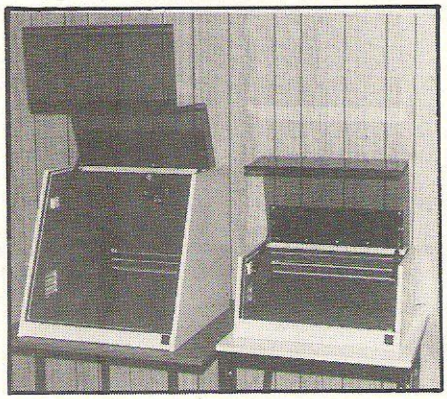
Printer Silencers

Printers are noisy, and this excess noise not only results in disruption and discomfort for office personnel but also a decrease in overall efficiency. Printer Silencers comes in all shapes and sizes as you will see from our pictorial guide.

T Mat (Tel: 0509 217171)

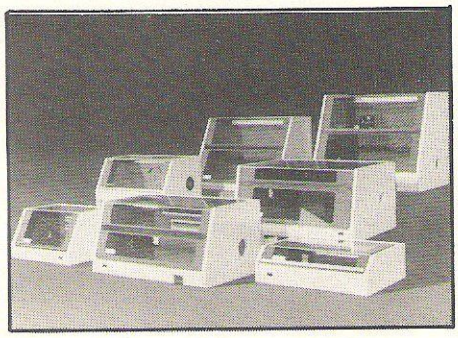
Noise control specialists T Mat Engineering produce the Ventguard range of acoustic covers. It covers most printers on the market and T Mat claim a noise reduction of 90-95%. All covers are fully specified and approved by HMSO for use in goverment departments.

The range is being extended this year to cover the mini-printer range.



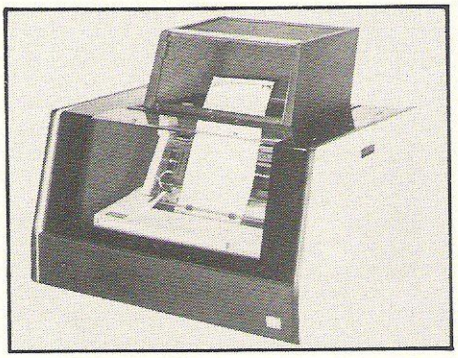
Quiet Print Europe (Tel: 021-550 1827)

Quiet Print Printer Silencers provide up to 90% noise reduction. Constructed of acrylic and wood, high density foam linings enhance acoustic performance. For protection, the printer cannot be turned on without activating the Whisper fan provided.



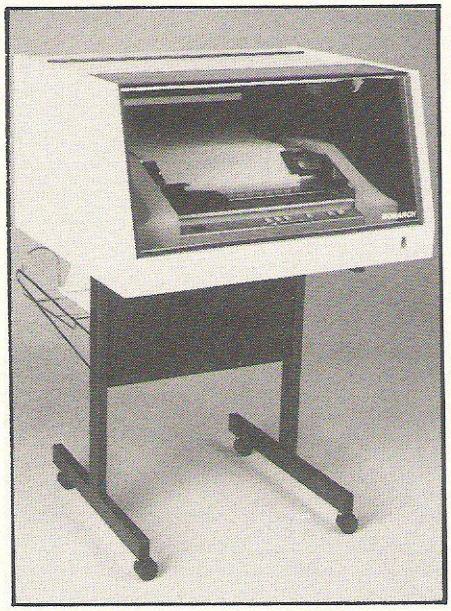
Fernhill Equipment (Tel: 0276 20010)

Fernhill's range of silencers reduce noise by around 85%, They fit all formstractors and sheetfeeders with a model to fit most printers.



Monarch Acoustics (Tel: 06077 6606)

Monarch Acoustics offer a range of acoustic covers to accomodate printers ranging from the micro's up to the daisy wheel with sheet feeder. Fitted with electric fans for cooling the printer, Monarch's silencers offer noise reduction of 14-20 dBA.

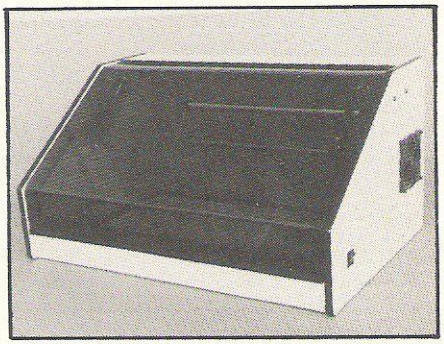


Primatel (Tel: 01-679 4428)

All-British Primatel offer a range of printer silencers which reduce noise by 90+%. All covers are fitted with a silent running cooling fan and have two slots in the back panel for paper feed. Primatel also supply the following accessories: 13 amp switched socket; appliance socket and lead; printer stand and paper basket; and work stations.

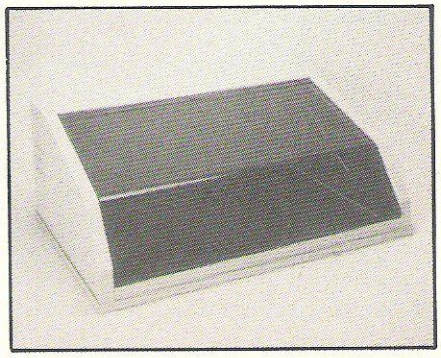
LMF (Tel: 0909 482594)

LMF claim that their silencers reduce printer noise to a whisper. A silent ventilation fan supplies cool air, while a metal adjustable rear paper slot ensures correct running height of continuous stationary. The range caters for the majority of printers.



Lynnem (Tel: 04446 3377-6632)

Lynnem have 15 years of specialist experience in the design and manufacture of Acoustic Enclosures. Approved by British Telecom and Mannesmann Tally, among others, Lynnem have now added a solid mahogany enclosure to its range of steel and wooden laminate acoustic enclosures.



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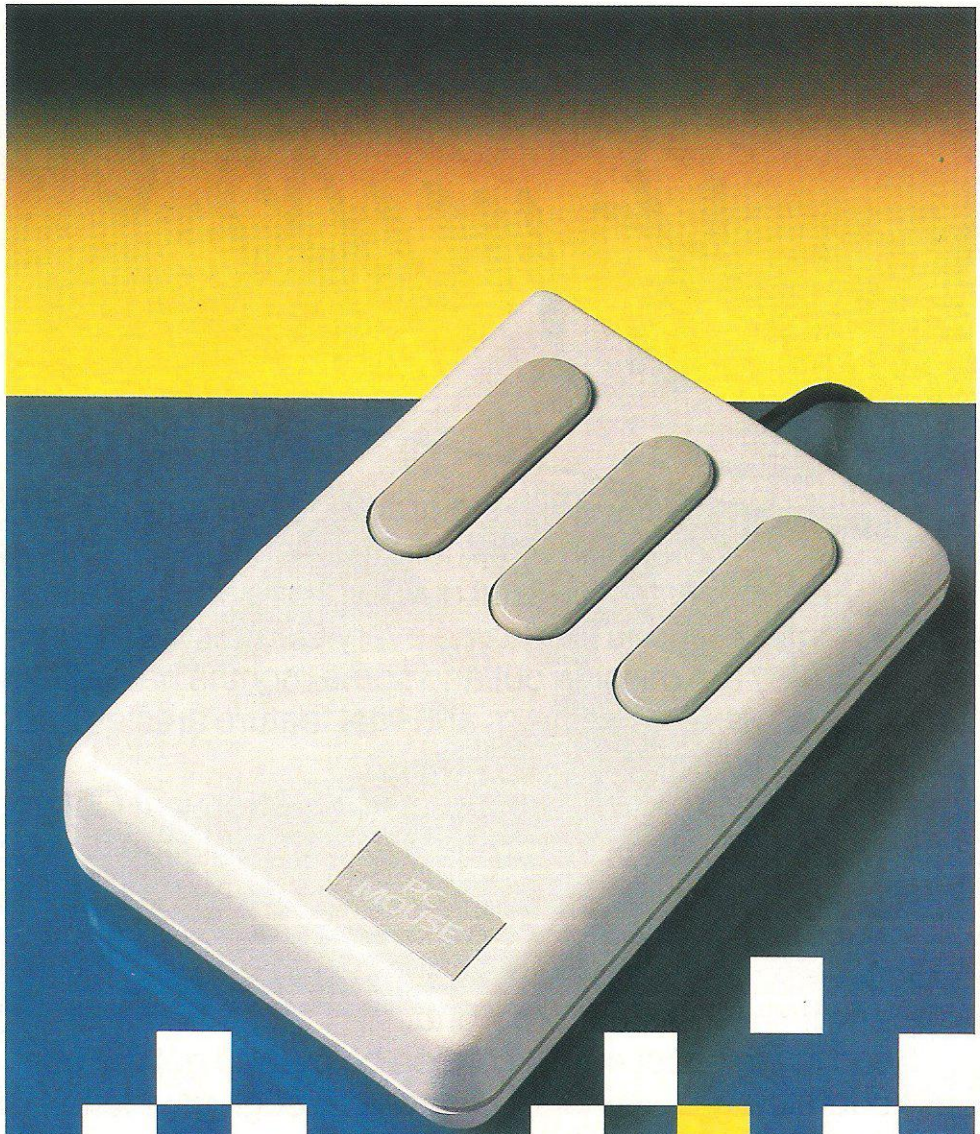

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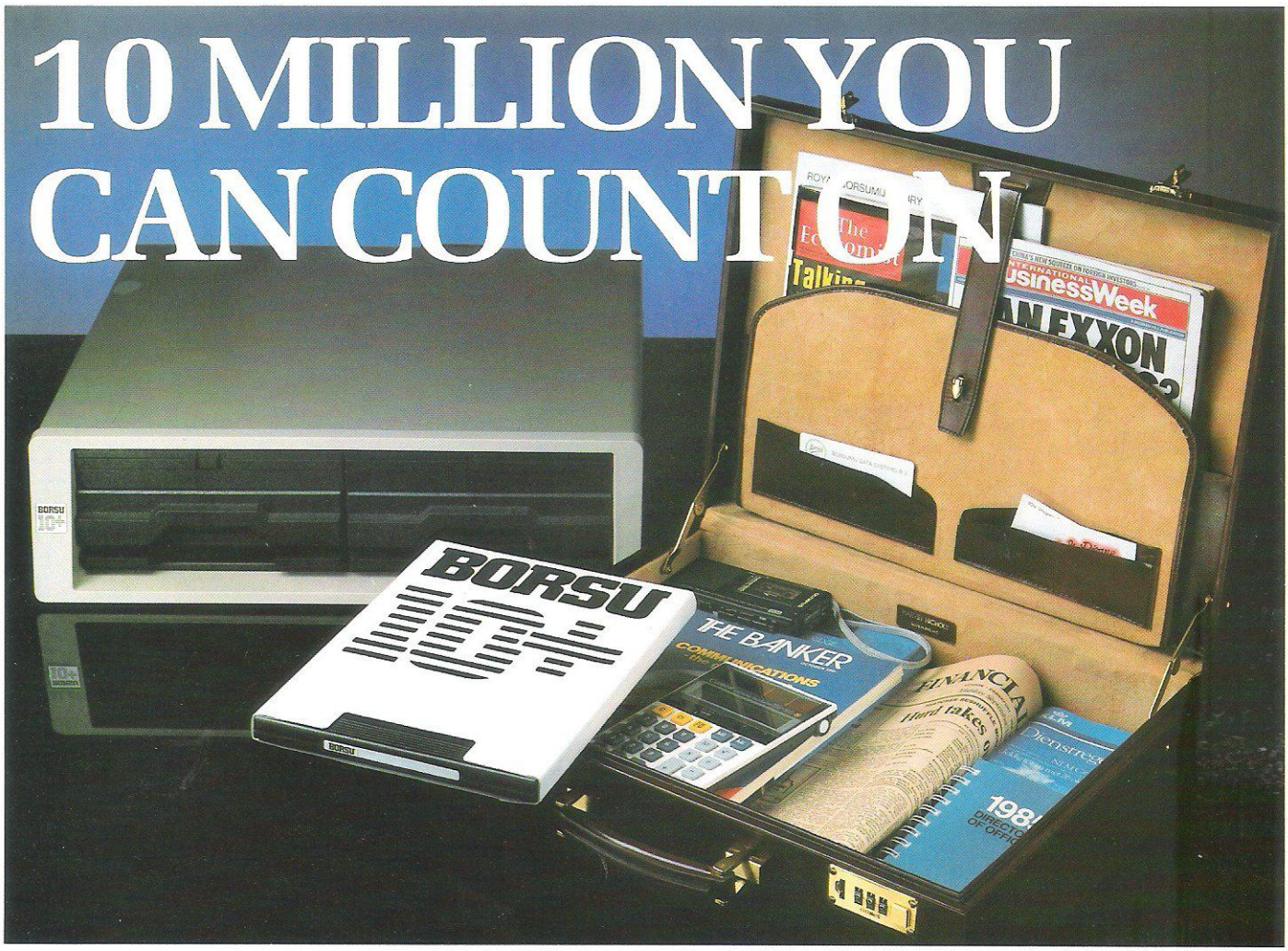

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